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ABSTRACT

This guide describes the Delaware Student Testing Program (DSTP) and includes information about the program and its results that will be useful for administrators and members of boards of education. In spring 1998, the Department of Education, in conjunction with Harcourt Educational Measurement, began its annual administration of the DSTP reading, writing, and mathematics tests for students in grades 3, 5, 8, and 10 to provide an accurate measure of how students are doing relative to Delaware's rigorous content standards. In spring 2000 the science and social studies tests were administered in grades 8 and 11, and a version of these tests designed for grades 4 and 6 were administered in fall 2000. This guide contains the following sections: (1) "Introduction to the DSTP"; (2) "Understanding the Language Arts Report"; (3) "Understanding the Mathematics Report"; and (4) "Understanding the Science and Social Studies Report." The sections on the subject matter reports contain details about individual, school summary, and district summary reports, score comparisons, performance levels, and instructional needs identified by the reports. Information is also provided for principals, superintendents, and boards of education for using the instructional needs comments. Two appendixes contain sample reports. (SLD)

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A SCORE RESULTS GUIDE FOR BOARDS AND ADMINISTRATORS

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Prepared by the Assessment and Analysis Group
Assessment and Accountability Branch

Delaware Department of Education
Spring 2000

Available on the Department of Education Website at www.doe.state.de.us

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Section I: Introduction to the DSTP

Delaware students must meet world class standards if they are to be competitive and successful in a global economy. To prepare our students for their future, our schools must support rigorous standards and each of our teachers must set high expectations. Our students must also commit themselves to the achievement of excellence.

Any system that hopes to accomplish such ambitious goals must have a yardstick by which to measure its progress. For the past several years Delaware educators have been developing the Delaware Student Testing Program (DSTP), which now will serve as such a yardstick. The tests are tied to the Delaware content standards that define the knowledge and skills required for our students to succeed beyond high school. The results of the DSTP provide us with an understanding of how well we are preparing students to meet the many challenges that lie ahead. Whatever the results, Delaware students and educators will understand where we are so that we can tell how far we have to go. An honest assessment of where we are is the first step towards getting where we want to be.

In the Spring of 1998, the Department of Education, along with Harcourt Educational Measurement, began its annual administration of the DSTP Reading, Writing, and Mathematics tests to students in grades 3, 5, 8, and 10, to provide us with an accurate measure of how well our students are doing relative to Delaware's rigorous content standards. In the spring of 2000, Science and Social Studies tests were administered in grades 8 and 11. Science and Social Studies tests will be administered in grades 4 and 6 in the fall, 2000.

Purpose of the test

The Delaware Student Testing Program is designed to:

- serve as a measure of progress toward the Delaware standards;
- ensure that students can apply their academic skills to realistic, everyday problems;

- promote better instruction and curriculum by providing timely reports of students' strengths and weaknesses;
- ensure that students are formally provided with extra instruction when needed;
- serve as a primary indicator in the statewide accountability system; and
- help districts deal with the issue of who should and should not be promoted from grade to grade.

Questions and Answers about the DSTP

What are "Standards"?

The standards are the result of several years of work by Delaware educators to determine what Delaware students should know and be able to do as a result of their education. The standards for English language arts, mathematics, science and social studies were approved by the State board of Education in 1995. Since then, Delaware's standards have been widely recognized as among the best in the nation by publications such at *Time*, *Forbes*, and *Education Week*. Each Teacher and each administrator in Delaware has a copy of the Standards.

What kind of information is tested in each part of DSTP?

Reading: Many aspects of reading are assessed using literary, technical, and informational passages. Students are asked to read passages and then demonstrate their ability to analyze and interpret what they have read by answering multiple-choice, short answer, and extended response questions. Because reading is fundamental to success in all areas of education, the reading test is especially important. **The results of the spring 2000 Reading test in grades 3, 5, and 8 will determine whether or not students will be required to have an Individual Improvement Plan (IIP) for the 2000-2001 school year .**

Writing: In this section of the test, writing is assessed in two ways. First, students are asked to provide a written response to a prompt (question or statement). Second, students are asked to write a short response to a question about a reading passage. This is done so students recognize that reading and writing are integrally connected.

Mathematics: The mathematics section assesses a student's ability to grasp key concepts and solve realistic problems. Multiple choice, short answer, and extended response questions are used to assess students' conceptual knowledge, procedural knowledge, and knowledge of mathematical processes across core areas such as computation, measurement, algebra, and geometry. Because the test is focused on reasoning and analysis, students are permitted to use calculators on some parts of the test. **The results of the spring 2000 mathematics test at grade 8 will determine whether or not a student will be required to have an Individual Improvement Plan (IIP) for the 2000-2001 school year.**

Science: The science section assesses a student's ability to grasp key scientific principles and solve realistic problems. Multiple choice questions and short answer

questions are used to assess students' conceptual knowledge, procedural knowledge, and knowledge of scientific principles across core areas such as ecology, diversity of living things, life processes, dynamic systems, space, energy, properties of materials, and the nature and application of science and technology. The test is focused on reasoning and analysis. Note that when tests are administered to students in grades 4 and 6, the students knowledge of 3rd and 5th grade science standards are being assessed.

Social Studies: The social studies section assesses a student's ability to grasp key concepts and apply this knowledge to everyday living within a diverse world, and within a democratic system. Multiple choice questions and short answer questions are used to assess students' conceptual knowledge and analytical abilities across the core areas of civics, economics, geography, and history. The test is focused on reasoning and analysis across core areas. Note that when tests are administered to students in grades 4 and 6, the students knowledge of 3rd and 5th grade social studies standards are being assessed.

What type of questions are found on the DSTP?

Students will encounter the following types of questions on the DSTP:

- Multiple-choice items (scored at one point each).
- Short answer items (scored on a 0-1-2 scale, using item-specific rubrics).
- Extended response items (scored on a 0-1-2-3-4 scale, using item-specific rubrics).
- Text-based writing items (extended response items that are scored for both reading and writing). These items are scored on a 0-1-2-3-4-5 scale, using item specific rubrics.

Samplers of items and their answers or accompanying rubrics can be found on the DOE website at www.doe.state.de.us. Click on **DSTP**, then click on **Sample Items**. These items can be downloaded and used as practice items in the classroom. Similar items from the NAEP (National Assessment of Educational Progress), the DelaWISE Delaware Comprehensive Assessment Program (Science), and the NAGB (National Assessment Governing Board) can also be accessed through the DOE website and downloaded for use in the classroom.

What are scaled scores and what is the advantage of using them?

A student's number of correct responses to test items is called a raw score. On the DSTP the reading and mathematics raw scores are converted to scale scores by use of the Item Response Theory, Rasch Model process. This is a widely accepted scaling procedure used by testing companies. The primary purpose of converting raw scores to scaled scores is to aid in interpreting students' test results. The scaled scores on the DSTP permit comparison of the scores of a student over time from grade 3 to grade 5 to grade 8 to grade 10. This permits an examination the student's growth over time. Scaling also permits the examination of other trends in performance of **groups of students** over time.

What are the Scores and How Are They Going to Be Used?

There are four types of scores that are reported via written reports. These types are:

1. Individual student scores;
2. School scores;
3. District scores; and
4. Statewide scores.

There are five types of reports available from the DSTP-OR intranet system (four types provide information like those written reports listed above and a fifth is a special group report). It is strongly recommended that principals set up a clear policy for their teachers who may want access to this reporting system. Each type of report is discussed below:

Individual student scores:

These results are reported to parents and to schools so the indicators of the student's academic strengths and weaknesses can be seen. In turn, both parents and teachers can begin to assist the student in meeting the rigorous content standards.

The main indicator of student progress is reported as the student performance level. The performance levels were developed after the spring 1999 DSTP test was administered. The results of this test were used to develop decision points for performance levels (see pages 13 to 15 for the development of the reading and writing decision points, and pages 30 and 31 for mathematics decision points.) A student receiving a score Well Below the Standard or Below the Standard in reading at grades 3, 5, and 8, and math at grade 8, will be required to have an Individual Improvement Plan (IIP) developed for the 2000-2001 school year. These plans will contain individual instructional needs in reading and in mathematics and what instructional interventions will be provided by the schools. Teachers, administrators, and parents will participate in the development of the IIP.

School scores:

The results of student performance on the DSTP for the entire school can assist the principal in evaluating how the curriculum is functioning: What are the strengths of the curriculum? What are the weaknesses? What overall curriculum changes might be necessary to assist students in meeting the standards? The school scores can provide a signal to the principal that additional resources may be needed or reallocated to assist teachers in providing the necessary instruction.

District scores:

The results of district-wide student performance on the DSTP allow the superintendent to identify strengths and weaknesses common to the schools in the district. This information permits the superintendent to examine district-wide curriculum that works,

curriculum that needs adjustment, resource allocation, and/or any other adjustment that might be necessary.

Statewide scores:

The results of the statewide scores permit the Department of Education and legislators in Delaware to monitor the collective progress of students toward meeting the Delaware content standards. It is anticipated that the statewide scores on the DSTP will increase for students as teachers and school administrators begin to identify strengths and weaknesses and to continue to work for changes to improve the educational process.

Reports

Written DSTP reports are distributed to parents and education administrators. Examples of these reports are found in Appendix A.

Reports sent to parents

Principals and parents of students in grades 3, 5, 8, and 10 receive two reports:

1. The 2000 DELAWARE STUDENT TESTING PROGRAM English Language Arts Individual Report,
2. The 2000 DELAWARE STUDENT TESTING PROGRAM Mathematics Individual Report, and

Principals and parents of students in grades 4, 6, 8, or 11 receive a third type of report:

3. The 2000 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies Individual Report. Reports for 8th and 11th grade students will be sent in September of 2000, reports for 4th and 6th grade students will be sent in February 2001.

Reports sent to administrators

Schools

Each school receives up to three reports for each grade level tested:

1. For students in grades 3, 5, 8, and 10, the 1999 DELAWARE STUDENT TESTING PROGRAM English Language Arts Summary Report for the School,
2. For students in grades 3, 5, 8, and 10, the 1999 DELAWARE STUDENT TESTING PROGRAM Mathematics Summary Report for the School, and
3. For students in grades 4, 6, 8, and 11, the 2000 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies School Summary Report. (Reports for 8th and 11th grade students will be sent in September of 2000, reports for 4th and 6th grade students will be sent in February 2001.)

Districts:

Each district receives district-wide reports for each 3rd, 4th, 5th, 6th, 8th, 10th and 11th grade level tested:

1. For students in grades 3, 5, 8, and 10, the 1999 DELAWARE STUDENT TESTING PROGRAM English Language Arts Summary Report for the district,
2. For students in grades 3, 5, 8, and 10, the 1999 DELAWARE STUDENT TESTING PROGRAM Mathematics Summary Report for the district, and
3. For students in grades 4, 6, 8, and 11, the 2000 DELAWARE STUDENT TESTING PROGRAM Science and Social Studies District Summary Report for the district. (Reports for 8th and 11th grade students will be sent in September of 2000, reports for 4th and 6th grade students will be sent in February 2001.)

Individual and group reports available from the DSTP-OR reporting system

School administrators can receive reports of:

1. English language arts scores for individual students or groups of students;
2. English language arts instructional needs for groups of students;
3. Mathematics scores for individual students or groups of students;
4. Mathematics instructional needs for groups of students;
5. Science and social studies raw scores for individual students or groups of students; and/or
6. Science and social studies test score analysis for groups of students.

On-line reports can be downloaded into an Excel spreadsheet and overall scores computed for any selected group of students. Examples of the DSTP-OR system reports can be found in Appendix B.

SECTION II: Understanding the Language Arts Report

There are two sources of the score reports that are available:

- Individual, school, and district score reports produced by Harcourt Educational Measurement and sent to school administrators; and
- Individual and group score reports that can be produced by the new DSTP-OR secure system.

The reports produced by Harcourt Educational Measurement are automatically sent to school administrators and DOE. Score reports can also be produced via the new DSTP-OR secure system. The system is highly secure and is password protected. To generate an individual or group report, you must supply the name or the state-student ID for each student requested.

Reports Produced by Harcourt Educational Measurement

The individual student and school score reports administrators receive from Harcourt Educational Measurement contain seven sections of information regarding student performance:

Individual student reports

1. Grade, testing date and SAT9/Level and Form; and the date the SAT9 Norms were developed.

2. The reading scaled score for each **student** compared to other students at the **same grade level** in the school;

   The average reading scaled score for the **school** (for students in the **same grade** as the student);

   The average reading scaled score for the **district** (for students in the **same grade** as the student);

   The average reading scaled score for the **State of Delaware** (for students in the **same grade** as the student);

3. The writing score of the **student** compared to other students at the **same grade level** in the school;

   The average writing score for the **school** (for students at the **same grade** as the student);

   The average writing score for the **district** (for students in the same grade as the student);

   The average writing score for the **State of Delaware** (for students in the **same grade** as the student);

4. The student's SAT9 percentile rank for reading;
5. The student's Performance Level and score in reading and in writing; and
6. The student's instructional needs in reading and writing.

Examples of these reports can be found in Appendix A.

School summary reports

1. Grade, testing date and SAT9/Level and Form; and the date the SAT9 Norms were developed;
2. The average reading scaled score for the **students** in your school compared to:
   - The **district** (for students in the **same grade** as your students);
   - The **State of Delaware** (for students in the **same grade** as your students);
3. The writing score of **students** in your school compared to:
   - The **district** (for students in the **same grade** as your students);
   - The **State of Delaware** (for students in the **same grade** as your students);
4. The school's average SAT9 percentile rank for reading;
5. A summary of your school's Performance Level and score in reading and in writing; and

6. A summary of your school's instructional needs comments for reading and writing.

Examples of these reports can be found in Appendix A.

District summary reports

1. Grade, testing date and SAT9/Level and Form; and the date the SAT9 Norms were developed.
2. The average reading scaled score for the **students** in your district compared to the **State of Delaware** (for students in the **same grade** as your students);
3. The writing score of **students** in your school compared to the **State of Delaware** (for students in the **same grade** as your students);
4. The district's average SAT9 percentile rank for reading;
5. A summary of your district's Performance Level and score in reading and in writing, and
6. A summary of your district's instructional needs comments for reading and writing.

Examples of these reports can be found in Appendix A.

Each section of the English Language Arts Individual Report is discussed separately.

Grade, Testing Date, SAT9 Level/Form and SAT9 Norms

This part of the score report provides general information about the administration of the test:

- The grade level of students (03, 05, 08, or 10) is reported next to **Grade**.
- The date students took this test is then listed.

SAT9 Level/Form and Norms

Following the test date is the SAT9 **Level/Form**. The SAT9 is an acronym for the *Stanford Achievement Test-Ninth Edition*. The SAT9 is a standardized, nationally administered test. To create the national norms for the SAT9, it was administered to a representative sample from 225,000 to 250,000 students nationwide. Their score results are referred to as national norms, or more usually, "norms". The norms become a reference point against which to compare the performance of any student who then takes the SAT9. The norms for the 2000 test were developed in 1995.

Score comparisons of grade tested: Reading

Individual student score

This section contains score comparisons of the student's reading score against all of the students at the **same grade level** who took the test in the school, in the district and in the state. The students' average score is found on the line between the lowest scale score listed on the left-hand side of the line and the maximum scale score on the right. Remember that each student in your school is being compared with other students at the **same grade** level in the school, in the district and in the state.

Note that you will see that different grade levels have different scale values. For tenth grade students, the scale listed ranges from 250 to 800; for eighth grade students, it ranges from 225 to 775; for fifth grade students, it ranges from 175 to 700; and for third grade students, it ranges from 150 to 675. It is expected that older students will perform at a higher level than younger students will. Appendix A contains a copy of the individual student score report.

The school score

In this section you can also see how all the students in your school are performing on reading compared to all the students in the district who took the test by examining the position of the school's score on the scale. Remember that these scores reflect performance of students in the **same grade** as your students. The individual student report shows the school's average reading score as does a copy of your school's score report. Appendix A contains a copy of school summary report.

The district score

In this section you can also see how all the students in your school district are performing on reading compared to all the Delaware students who took the test by examining the position of the district's score on the scale. Remember that these scores reflect performance of all district students in the **same grade** as your students. The district score is reported on the individual score report and the school summary report as well as the district summary report sent to superintendents. Appendix A contains a copy of the district summary report.

The state of Delaware score

In this section you can also see how all the students who took the test in the State of Delaware are performing on reading by examining the position of the state's score on the scale. Remember that these scores reflect the performance of all students in the **same grade** as your students. The state score is reported on the individual score report, the school summary report, and the district summary report as well as the statewide score report sent to the Department of Education. Appendix A contains a copy of the statewide score report.

Score comparisons of grade tested: Writing

This score is the total points your students received on two writing prompts. The first prompt is based on a reading passage and is called a text-based writing prompt; that is, students must read a passage and then answer a question and write about what they read. They have approximately 30 minutes to do this.

The second prompt stands by itself. Students respond to a few sentences that prompt them to write about a topic or an issue. Students have 2 hours to respond to this prompt. The text-based prompt is scored by one judge, the stand-alone prompt is scored by two judges, and the total writing score is the combination of all three scores. A maximum of 5 points and a minimum of 1 point can be awarded by each judge, thus the maximum score is 15 (5+5+5) and the minimum score is 3 (1+1+1). The students' writing score is found on the line between the values of 3 to 15.

Individual student report

This writing section contains score comparisons of the students' average writing score in your school against students who took the test in the district, and in the State of Delaware. Appendix A contains a copy of the individual student score report.

The school score

In this section you can also see how all the students in your school are performing on writing compared to all the students in the district who took the test by examining the position of the school's score on the scale. Remember that these scores reflect performance of students in the **same grade** as your students. The individual student report shows the school's average writing score as does a copy of your school's summary report sent to your principal. Appendix A contains a copy of school summary report.

The district score

In this section you can also see how all the students in your school district are performing on writing compared to all the Delaware students who took the test by examining the position of the district's score on the scale. Remember that these scores reflect the performance of all district students in the **same grade** as your students. The district score is reported on the individual summary report and the school summary report as well as the district summary report sent to superintendents. Appendix A contains a copy of the district summary report.

The state of Delaware score

In this section you can also see how all the students who took the test in the State of Delaware are performing on writing by examining the position of the state's score on the scale. Remember that these scores reflect the performance of all state students in the **same grade** as your students. The state score is reported on the individual score report, the school summary report and the district summary report as well as the

statewide summary report sent to the Department of Education. Appendix A contains a copy of the statewide report.

Average percentile rank: Reading

SAT9

The percentile rank for reading is obtained from the abbreviated form of the SAT9 that is embedded in the DSTP. The SAT9 is the timed portion of the DSTP, and is included for several reasons:

- It allows national comparisons of the reading performance of Delaware students on a nationally used standardized test, thus permitting the comparison of student performance on general reading proficiency to other students across the United States.
- A subset of the SAT9 items is directly related to the Delaware Reading Standards and is a part of the DSTP score.
- The embedded SAT9 items permit the important and efficient psychometric process of equating and scaling the DSTP from one administration of the test to subsequent administrations of the test.

Percentile rank

A percentile rank is a way of looking at how well a student performed on the SAT9 Reading test relative to all the same grade students in the national norms. Percentile rank gives the additional information as to what percentage of **same grade** students in the norms scored higher or lower than a student. Similarly, an average percentile rank is a way of looking at how well students in your school performed on the SAT9 Reading test relative to all the same grade students in the national norms. Percentile rank gives you the additional information as to what percent of **same-grade** students in the norms scored higher or lower than the students in your school. For example, if the students in your school or district had an average reading percentile rank of 91, it means that 91 percent of the students in the national norms scored **below** the average rank of your students and only 9 percent scored **at or higher**. If the students in your school or district had an average reading percentile rank of 54, it means that 54 percent of the students in the national norms scored **below** your students and that 46 percent scored **at or higher** than your students. If the students in your school or district had an average percentile rank of 29, it means that 29 percent of students in the national norms scored **below** your students and that 71 percent scored **at or higher**.

In some cases students might score higher or lower on the SAT9 Reading test than on the DSTP Reading test. It must be kept in mind that the students' average SAT9 percentile rank score cannot be directly compared to the relative scale position of the DSTP Reading test score. There are several reasons why these scores are non-comparable:

- The SAT9 Reading test is not directly aligned with Delaware Reading Content Standards. A portion of the SAT9 Reading test is related to the Reading Content Standards and is included in the DSTP score, whereas the DSTP Reading test is **completely aligned** with the English Language Arts Content Standards.
- The SAT9 is entirely comprised of multiple choice items, whereas the DSTP is comprised of multiple choice, short answer, and extended response items. Writing short answers and extended responses requires very different skills than selecting the answer on a multiple-choice item. Because the items on the SAT9 and the DSTP Reading test are very different in format (multiple choice vs. multiple choice, short answer, and extended response), they measure very different aspects of reading, and their results cannot be directly compared.
- The score for the DSTP Reading test is based on a substantially larger number of test items than the score for the SAT9 Reading test. This means that the DSTP Reading test samples a larger portion of the student's reading skills as defined by the English Language Arts Content Standards than does the SAT9.

Appendix A contains a copy of an individual score report containing percentile ranks, and a copy of a school summary report containing percentile ranks.

Performance levels

Performance levels were developed during the fall of 1999. To determine performance level, cut scores were first developed.

Cut point development

During the fall of 1999, a group of 188 participants consisting of 83% teachers, 7% administrators, 9% parents, and 1% of participants from organizations or from the community, met under the guidance of Harcourt Educational Measurement, to develop the "Meets the Standard" and "Exceeds the Standard" cut points. A subset of these participants developed the cut points for reading and writing. The methodology used by judges for setting the cut points is referred to as "Item Mapping" by some measurement companies, and "Bookmarking" by other companies. This procedure required several groups of judges to examine a book of DSTP items arranged from the easiest to the most difficult and inserting "bookmarks" at the items they felt most strongly defined where a cut should be placed. Each group of judges worked with a single test at a single grade. Once the judges' recommendations had been finalized, the Department of Education, with the technical assistance of Harcourt Educational Measurement, calculated the cut points for the "Below the Standard" and "Well Below the Standard" levels, and the cut point for the "Distinguished" performance level.

Performance levels: Reading and Writing

There are five performance levels in reading and writing that are consistent with Delaware's accountability law. The following describe each level:

Performance Level		Described as:
Level 5	Distinguished Performance	Exemplary performance
Level 4	Exceeds the Standard	Very Good
Level 3	Meets the Standard	Good
Level 2	Below the Standard	Needs Improvement
Level 1	Well Below the Standard	Needs Significant Improvement

Cut points: Reading

The cut points for the DSTP reading Scale Score are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 3	386	387	411	465	482
Grade 5	426	427	451	508	529
Grade 8	474	475	500	564	584
Grade 10	476	477	502	573	593

Each scale score indicates the lowest score on the DSTP a student could earn and still achieve the indicated level. Beginning with this spring 2000 DSTP score results, students who fall into the "Below the Standard" and "Well Below the Standard" in reading at grade 3, 5, and 8 will be required to have an Individual Improvement Plan (IIP) developed for them.

In the future, the Performance Level for reading and mathematics for each individual student will be used to determine if the student will receive recognition and awards, whether or not the student will attend summer school, be promoted to the next higher grade, or be eligible for a State of Delaware diploma.

Cut points: Writing

The cut points for the DSTP Writing Raw Score are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 3	4	5	7	11	13
Grade 5	5	6	8	11	13
Grade 8	5	6	8	11	13
Grade 10	5	6	8	11	13

Each raw score indicates the lowest score on the DSTP a student could earn and still achieve the indicated level.

Instructional needs

This section of the report provides summary feedback that depends on what items the students in your school or district answered correctly and incorrectly, and/or how the items were answered.

Instructional needs: Reading

The reading instructional needs comments are produced by what answers a student gives to clusters of test items. On the Individual Student Score Report for example, if a student answered incorrectly a series of open-ended reading items that needed more details, then a comment would be produced suggesting that the student work on "producing enough details to answer open-ended questions." Likewise, if items that measured the student's ability to understand the central ideas in a piece of text are answered incorrectly, then a comment would be produced stating that the student needed to work on "understanding the central ideas in a text."

On the School Summary Report, all comments produced (triggered) by all students in your school are listed. On the District Summary Report, all comments produced by all students in your district are listed. For each comment, the number, and the percent of students that triggered the comment is reported. The summary of individual student instructional needs for your school or district can provide information about the areas in which the students need to improve performance. When reviewing individual reports, you will find that each student's report will likely differ from another student's report in this section. It should be noted that the comments on the instructional needs in reading:

- reflect the Delaware content standards for reading;
- are listed from basic to complex as indicated in the Delaware content standards for reading;

- were developed to help teachers examine the instructional needs of their students.

The reading standards support twelve broadly stated comments that relate to reading. Not all comments are triggered at all grade levels. Following are the comments that can be triggered by student responses to one or more of the reading items.

- Providing enough details to answer open-ended questions[1]
- Reading more carefully to better understand what is happening in a text
- Understanding the central ideas in a text
- Identifying information necessary to understanding a text
- Using information to make reasonable interpretations
- Identifying and understanding why a text was written
- Drawing conclusions based on information in the text
- Understanding the effects of an author's decisions
- Connecting and synthesizing information into a clear interpretation within and across texts, ideas, and concepts
- Formulating, expressing, and supporting opinions
- Making and supporting inferences about contents, events, characters, setting, theme, and style
- Continuing use of good reading strategies

For administrator review and analysis, a summary of the number of students and the percentage of students who triggered each cluster of comments are provided for the school on the school report, and for the entire district on the district report.

Instructional needs: Writing

In writing, a cluster of comments is produced (triggered) according to a student's "average" performance **score** across two writing prompts. Triggering the cluster of comments in this way allows us to create a hierarchy of comments that will help push all students toward the upper end of the state writing rubric (scoring guide), and thus toward the state standards for writing.

It should be noted that the comments in the writing instructional needs:

- reflect the Delaware content standards for writing;
- provide parents with information regarding their student's strengths and weaknesses in writing;
- were developed to help teachers examine the instructional needs of their students;

[1] This comment refers to the degree to which students provided complete answers to constructed response items.

- occur in "clusters" as opposed to individual comments to better reflect the integrated nature of the writing rubric (scoring guide) and the Delaware writing standards.

The writing standards support four broadly stated clusters of comments that directly relate to writing. The clusters are hierarchical in nature, that is, Cluster 1 reflects the most instructional needs a student requires for improvement, and Cluster 4 reflects the fewest necessary for improvement.

Each student who took the test will receive a cluster of comments that match their **scores**. Following are the comments that can be triggered by a student's written responses. The comments come directly from the state writing rubric (scoring guide) and the state standards. Two comments: "organizing their writing around a simple topic or central idea" and "working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding," are repeated in clusters 1 and 2 to show that developing writers need continued instruction in these areas.

Cluster 1

- organizing the writing around a simple topic or central idea
- writing in complete sentences with a variety of length and structure
- working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding
- doing more than restating the prompt

Cluster 2

- organizing the writing around a simple topic with an introduction, closing, and some transitions
- working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding
- supporting ideas with more specific details
- doing more than making generalities regarding the prompt

Cluster 3

- using effective and varied introduction and closing
- writing in a consistent style with precise vivid word choice
- writing with a clear logical progression of ideas using smooth transitions
- including relevant details that are fully elaborated

Cluster 4

- "Congratulations on an excellent performance" on at least one of the two writing prompts.

- The comments below are to encourage the student to strive for excellence by:
  - continuing to write using distinctive voice and style
  - showing an exceptional awareness of readers' needs

Reports Generated by the DSTP- OR System

A DSTP-OR system report can be obtained through the Delaware DOE Web site. The site is **secure** and a password is required to access student information. The reports provide student score information for English language arts (reading and writing), mathematics, science, and social studies. There are several reports that may be of special interest to you:

1. List of test scores and/or performance levels of selected students in a classroom or school;
2. Summary report of test scores and/or performance levels of selected students in a classroom or school;
3. Instructional needs report for selected students and/or school.

List of test scores of selected students

Test scores from the 1998, 1999, and 2000 spring tests are available. Students must be selected by name or ID. You will need to select the exact names of students or provide the state-ID numbers of the students to retrieve this information. A request can be made for a report listing all scores (reading, writing, mathematics, science, and social studies), or for a separate report for reading, writing, mathematics, science, or social studies. Additional demographic information such as race, gender, Title I, special education (SPED), LEP status (LEP), and whether their score(s) can be aggregated (AGG) can also be requested. See the listed options in Appendix B. An example of the downloaded EXCEL report can also be found in Appendix B of this guide.

Score and performance information:

- IIP status;
- Reading performance level for each student;
- Reading scaled score for the class;
- Reading percentile rank;
- Reading NCE score;
- Writing performance level;
- Writing raw score;
- Mathematics performance level;

- Mathematics scale score;
- Mathematics percentile rank;
- Mathematics NCE score;
- Science raw score; and
- Social studies raw score.

Each section of the report for English Language Arts test scores is discussed separately.

IIP Status

The results of the spring 2000 reading test in grades 3, 5, and 8 will determine whether or not students will be required to have an **Individual Improvement Plan (IIP)** for the 2000-2001 school year. Students who fall into the "Below the Standard" and "Well Below the Standard" performance levels will be required to have an IIP. This plan will outline what extra assistance the student will need and how that assistance will be provided by the school. Parents must participate with the school in developing this plan.

Reading performance level

There are five performance levels in reading that are consistent with Delaware's accountability law. A discussion of the development of reading cut scores, the cut scores themselves, and the resultant performance levels can be found on pages 13 and 14 of this document.

Reading scaled score

This section contains the reading scaled score for each of the students selected. A student's number of correct responses to test items is called a raw score. On the DSTP the reading raw scores are converted to scaled scores by use of the Item Response Theory, Rasch Model process. This is a widely accepted scaling procedure used by testing companies. The primary purpose of converting raw scores to scaled scores is to aid in interpreting students' test results. The scaled scores on the DSTP permit comparison of the scores of a student over time from grade 3 to grade 5 to grade 8 to grade 10. Scaled scores allow an examination of the student's growth over time. Scaling also permits the examination of other trends in performance of **groups of students** over time.

Reading percentile rank

This section contains the reading percentile rank for each of the students selected. A discussion on the meaning of the percentile rank can be found on pages 12 and 13 of this document.

Reading NCE score

This section contains the reading NCE (Normal Curve Equivalent) Score. The NCE is a normalized standard score that has a mean of 50 and a standard deviation of 21.06. The NCE standard score ranges from 1 to 99, like that of the percentile rank. In fact, the NCE scores of 1, 50, and 99 are equivalent to percentile ranks of 1, 50, and 99. The other NCE values are distributed somewhat closely to the distribution of the percentile rank and **must be used** to compute the **average** percentile rank of a group of students. To do this, the percentile rank of each student should be converted to an NCE score, the NCE scores are then averaged, and the resultant NCE average converted back to a percentile rank. If you use the DOE system to compute the average percentile rank, the program will automatically do these conversions and give you the **correct** average percentile rank. An example of the conversion table available to you on the website is found in Appendix B.

Writing performance level

There are five performance levels in writing that are consistent with Delaware's accountability law. A discussion of the development of writing cut scores is on page 13, and the resultant performance levels can be found on page 15 of this document.

Writing raw score

This section contains the writing raw score for each of the students selected. Writing is assessed in two ways: First, students are asked to write an extended essay in response to a prompt. Second, to reflect that reading and writing are integrally connected, students are asked to write a short essay responding to a question about a reading passage from the reading portion of the test. This essay is scored for both reading and writing. Trained scorers use rubrics and anchor papers (previously scored student papers) to determine the degree of success of a particular response. Each essay is scored by two different scorers, each assigning a score from 1 to 5. The text-based response is scored by a single scorer who assigns a score from 1 to 5. The three scores are added together to determine the student's standards-based score for writing. The possible scores at each grade are from 3 to 15. There is no nationally-normed writing test; thus, there are no percentile ranks for writing.

Summary of test scores of selected students

This report shows the grade level of the selected students, content area (reading or writing), each type of score within each of these content areas, the number of students selected, the mean score, standard deviation, and percent at each of the five performance levels for the selected students, for your school, and/or for your district, and for the state. Remember that all these scores are for students at the **same grade level** as your students. The data can also be disaggregated (separated out) by Gender, Race, Title I, LEP, and/or Special Education. Graphs are available to help you better understand the data. See Appendix B for an example of this report.

Instructional needs

instructional needs reports are also available on the DSTP-OR system. For the group of students selected, the reports provide the number and percent of students who received each indicator comments for reading or writing. There are no instructional needs reports available for an individual student. See Appendix B for an example of this report.

Using the Reading and Writing Instructional Needs Comments

Remember that the school level and district level instructional needs will indicate the number and percentage of students in the school or district for whom the comment was triggered. This means that the higher the percentage of students indicated as having a need, the more likely it is that additional instruction in that area of the standards will improve test scores.

Principals

To best utilize the information we would recommend the steps below.

1. Meet with teachers according to standards grouping (i.e., K-3, 4-5, 6-8, 9-10/11) to review the comments and the related standards. It is highly desirable that all teachers within a grade cluster participate in the discussions. The accountability system and the DSTP reflect the degree of success at reaching the standards, which is much broader and more comprehensive than a single grade level.

2. Discuss the kinds of practices, assignments, teaching strategies, etc. that they are using, and whether or not those practices are in line with the standards and address the comments. Some suggestions are included in the subsequent sections of this guide.

3. Work through the reports with the groups of teachers, discussing strengths and areas for improvement. All teachers should be reminded that year one of the DSTP is a baseline year and subsequently no value judgments about student performance should be made from test scores, although inferences about the possibilities for improvement are entirely justified. After that, however, if a school seems to have all the comments triggered at about the same rate, teachers should then be encouraged move forward and to prioritize their efforts so they don't feel as if they have to do everything all at once. Be sure to talk about the kinds of activities that teachers feel would help students in the particular area(s) of the standards where they seem to need some help.

4. Go through each comment and the related standards to discuss what you and your teachers might say to a parent whose child has had a particular comment triggered. The comments were intentionally written in teacher/standards language, which will be foreign to some parents, and they will need some clarification. Teachers should

be prepared to explain to parents how they intend to address their concerns in your teaching practices.

5. Meet regularly throughout the year to review progress in teaching the standards, working with parents, etc.

This kind of strategy should help make the best use of the instructional needs data, particularly in terms of helping understand the standards and what can be done to help students perform at even higher levels.

Ideas for reflection: Reading

Following is a partial list of broadly stated questions that you and your teachers can discuss as you reflect on the instructional needs comment reports in an attempt to help students improve. As no two schools are exactly alike, it is our hope that these questions will begin to lead you to answers that are specific to the needs of the students in your school.

- How does reading instruction in your school align with the Delaware standards for reading?
- What does reading instruction look like in the classroom?
- What pre-reading strategies do are used to help students get ready to read?
- What strategies are used to help students self-monitor their comprehension?
- What strategies are used to help students critically analyze and evaluate text?
- What strategies are used to help students identify the central ideas in a text?
- Do students have ample opportunity to read?
- Do students keep reading logs or reading journals?
- How do students select books and other materials for independent reading?
- What strategies are used to encourage students to read a variety of materials, e.g., literary, informative, technical?
- What opportunities are provided for students to talk about what they have read?
- Do students write about what they have read?
- How are students encouraged to compare and contrast information from a variety of sources?
- How is students' reading assessed?
- How do students assess their own reading?
- Have students had an opportunity to take practice test questions like those administered on the DSTP?

Ideas for reflection: Writing

Following is a partial list of broadly stated questions that can be asked and discussed with teachers as you reflect on the instructional needs reports in an attempt to help

students improve. As no two schools are exactly alike, it is our hope that these questions will lead you to answers that are specific to the needs of your students.

- How does the writing instruction align with the Delaware standards for writing?
- What does writing instruction look like in your school?
- Is writing process taught?
- Do students have ample opportunity to write?
- Do students have ample opportunity to write for different purposes and audiences using a variety of forms?
- How are the students helped to generate content for their writing?
- How do you help students organize their writing?
- What strategies are used to encourage your students to revise their writing?
- Are students encouraged to write in different content areas?
- How is writing assessed?
- Is the state writing rubric used to teach and/or assess writing?
- How do students assess their writing?
- How is assessment data used to improve your students' writing?
- Have students had an opportunity to take practice test questions like those administered on the DSTP?

We would also encourage you and your teachers **not** to expect easy solutions, quick fixes, or step by step approaches that presume the test has been designed to solve problems—it has not. The DSTP was specifically designed to help identify student strengths and weaknesses, but working to enhance their strengths and to overcome their weaknesses is best placed in the hands of the professionals who instruct students on a daily basis.

Superintendents and Boards of Education

Test scores are a **powerful tool when used properly** by the Chief School Officer and Boards of Education. They provide a measure of progress made and can be an indicator of priorities. In the beginning, superintendents and school boards should find monitoring the reading and writing scores of the schools in their district, as well as the statistics associated with the reading and the writing instructional needs comments, useful information to drive decision making and resource allocation. This monitoring should be done over time.

Caution must be used during the monitoring process. Reaction without thorough analysis of trend data, and the analysis of the underlying factors related to the scores trends would not be prudent. It should be a goal to treat the causes of low scores, and not the symptoms. Remember that instructional programs often help improve scores. Various programs can be explored with principals and teachers in the district to best benefit the districts, schools, teachers, and most importantly, the students.

A process that is an excellent first step that can be used by districts seeking to improve achievement is **curriculum alignment**. This activity involves studying what is written about the curriculum, what is taught in the district's classrooms, and what is assessed or tested. District curriculum workers, principals, and teachers should analyze the instructional programs of the district and schools in regard to these elements and then take whatever steps are needed to bring the three into alignment. For example, if a study shows that by the end of a grade cluster, students are expected to be able to respond to literary texts representing various historical periods in English Language Arts, then all students must have opportunities to acquire those skills during that cluster.

For districts to conduct alignment activities in English language arts and writing that center on Delaware's Content Standards, they will need the documents that are available to all Delaware districts: The alignment teams will need:

- ***New Directions: State of Delaware English Language Arts curriculum Framework, 1995;***
- ***Teacher's Desk Reference, Grades 6-8, 1998;***

  or

- ***Teacher's Desk Reference, Grades 9-12;***
- ***Delaware Student Testing Program Item Samplers, 1998 and 1999.***

The 1995 document forms the foundation on which the DSTP is based; however, it should be noted that the performance indicators for English language arts are essentially the same as those found in the frameworks, so that a district could use either in its alignment work. Of course, districts will want to include local curriculum documents in the study as well.

Standards-based alignment also poses new issues to boards of education, superintendents, and other curriculum planners. In the days before standards, norm reference tests asked students to "identify", or "choose", or "match." This required factual learning and rarely asked students to do anything with what they were supposed to have learned. The Delaware State Testing Program, grounded as it is in high standards for all learners, asks students to "analyze," "evaluate," "apply," and more. To help students meet or exceed these high standards and to apply what they have learned requires classrooms in which problem solving, inquiry, and application are fostered.

We would also encourage administrators and boards of education **NOT TO** expect easy solutions, quick fixes, or step by step approaches that presume the test has been designed to solve problems—it has not. The DSTP was specifically designed to help identify student strengths and weaknesses, but working to enhance their strengths and to overcome their weaknesses is best placed in the hands of the professionals who instruct students on a daily basis.

SECTION III: Understanding the Mathematics Report

There are two sources of the score reports that are available:

- Individual, school, and district score reports produced by Harcourt Educational Measurement and sent to school administrators; and
- Individual and group score reports that can be produced by the new DSTP-OR secure system.

The reports produced by Harcourt Educational Measurement are automatically sent to school administrators and DOE. Score reports can also be produced via the new DSTP-OR secure system. The system is highly secure and is password protected. To generate an individual or group report, you must supply the name or the state-student ID for each student requested.

Reports Produced by Harcourt Educational Measurement

The individual student and school score reports administrators receive from Harcourt Educational Measurement contain seven sections of information regarding student performance:

Individual student reports

1. Grade, testing date and SAT9/Level and Form; and the date the SAT9 Norms were developed.
2. The mathematics scaled score for each **student** compared to other students at the **same grade level** in the school;

   The average mathematics scaled score for the **school** (for students in the **same grade** as the student);

The average mathematics scaled score for the **district** (for students in the **same grade** as the student);

The average mathematics scaled score for the **State of Delaware** (for students in the **same grade** as the student);

3. The student's SAT9 percentile rank for mathematics;
4. The student's Performance Level and score in mathematics; and
5. The student's instructional needs in mathematics.

Examples of these reports can be found in Appendix A.

School summary reports

1. Grade, testing date and SAT9/Level and Form; and the date the SAT9 Norms were developed.
2. The average mathematics scaled score for the **students** in your school compared to:
   - The **district** (for students in the **same grade** as your students);
   - The **State of Delaware** (for students in the **same grade** as your students);
3. The school's average SAT9 percentile rank for mathematics;
4. A summary of your school's Performance Level and score in mathematics, and
5. A summary of your school's instructional needs comments for mathematics.

Examples of these reports can be found in Appendix A.

District summary reports

1. Grade, testing date and SAT9/Level and Form; and the date the SAT9 Norms were developed;
2. The average mathematics scaled score for the **students** in your district compared to the **State of Delaware** (for students in the **same grade** as your students);
3. The district's average SAT9 percentile rank for mathematics;
4. A summary of your district's Performance Level and score in mathematics; and
5. A summary of your district's instructional needs comments for mathematics.

Examples of these reports can be found in Appendix A.

Each section of the Mathematics Individual Report is discussed separately.

Grade, Testing Date, SAT9 Level/Form and SAT9 Norms

This part of the score report provides general information about the administration of the test:

- The grade level of students (03, 05, 08, or 10) is reported next to **Grade**.
- The date students took this test is then listed.

SAT9 Level/Form and Norms

Following the test date is the SAT9 **Level/Form**. The SAT9 is an acronym for the *Stanford Achievement Test-Ninth Edition*. The SAT9 is a standardized, nationally administered test. To create the national norms for the SAT9 Mathematics test, it was administered to a representative sample from 250,000 students nationwide. Their score mathematics score results are referred to as national norms, or more usually, "norms". The norms become a reference point against which to compare the performance of any student who then takes the SAT9. The mathematics norms for the 2000 test were developed in 1995.

Score comparisons of grade tested

Individual student score

This section contains score comparisons of the student's mathematics score against all of the students at the **same grade level** who took the test in the school, in the district and in the state. The student's score is found on the line between the lowest scale score listed on the left-hand side of the line and the maximum scale score on the right. Remember that each student in your school is being compared with other students at the **same grade** level in the school, in the district and in the state.

Note that you will see that different grade levels have different scale values. For tenth grade students, the scale listed ranges from 300 to 800; for eighth grade students, it ranges from 250 to 750; for fifth grade students, it ranges from 175 to 700; and for third grade students, it ranges from 150 to 650. It is expected that older students will perform at a higher level than younger students will. Appendix A contains a copy of the individual student score report.

The school score

In this section you can also see how all the students in your school are performing on mathematics compared to all the students in the district who took the test by examining the position of the school's score on the scale. Remember that these scores reflect performance of students in the **same grade** as your students. The individual student report shows the school's average mathematics score as does a copy of your school's score report. Appendix A contains a copy of the school score summary report.

The district score

In this section you can also see how all the students in your school district are performing on mathematics compared to all the Delaware students who took the test by examining the position of the district's score on the scale. Remember that these scores reflect performance of all district students in the **same grade** as your students. The district score is reported on the individual score report and the school summary report

as well as the district summary report sent to superintendents. Appendix A contains a copy of the district summary report.

The state of Delaware score

In this section you can also see how all the students who took the test in the State of Delaware are performing on mathematics by examining the position of the state's score on the scale. Remember that these scores reflect the performance of all state students in the **same grade** as your students. The state score is reported on the individual score report, the school summary report, and the district summary report as well as the statewide score report sent to the Department of Education. Appendix A contains a copy of the school score summary report.

Average percentile rank: Mathematics

SAT9

The percentile rank for mathematics is obtained from the abbreviated form of the SAT9 that is embedded in the DSTP. The SAT9 is the timed portion of the DSTP, and is included for several reasons:

- It allows national comparisons of the mathematics performance of Delaware students on a nationally used standardized test, thus permitting the comparison of student performance on mathematics proficiency to other students across the United States.
- A subset of the SAT9 items is directly related to the Delaware Mathematics Standards and is a part of the DSTP score.
- The embedded SAT9 items permit the important and efficient psychometric process of equating and scaling the DSTP from one administration of the test to subsequent administrations of the test.

Percentile rank

A percentile rank is a way of looking at how well a student performed on the SAT9 Mathematics test relative to all the same grade students in the national norms. Percentile rank gives the additional information as to what percentage of **same grade** students in the norms scored higher or lower than a student. Similarly, an average percentile rank is a way of looking at how well students in your school performed on the SAT9 Mathematics test relative to all the same grade students in the national norms. Percentile rank gives you the additional information as to what percent of **same-grade** students in the norms scored higher or lower than the students in your school. For example, if the students in your school or district had an average mathematics percentile rank of 91, it means that 91 percent of the students in the national norms scored **below** the average rank of your students and only 9 percent scored **at or higher**. If the students in your school or district had an average mathematics percentile rank of 54, it means that 54 percent of the students in the national norms scored **below** your students and that 46 percent scored **at or higher** than your students. If the students in your school or district had an average percentile rank of 29, it means that 29

percent of students in the national norms scored **below** your students and that 71 percent scored **at or higher**.

In some cases students might score higher or lower on the SAT9 Mathematics test than on the DSTP Mathematics test. It must be kept in mind that the students' average SAT9 percentile rank score cannot be directly compared to the relative scale position of the DSTP Mathematics test score. There are several reasons why these scores are non-comparable:

- The SAT9 Mathematics test is not directly aligned with Delaware Mathematics Content Standards. A portion of the SAT9 Mathematics test is related to the Mathematics Content Standards and is included in the DSTP score, whereas the DSTP Mathematics test is **completely aligned** with the Mathematics Content Standards.
- The SAT9 is entirely comprised of multiple choice items, whereas the DSTP is comprised of multiple choice, short answer, and extended response items. Writing short answers and extended responses requires very different skills than selecting the answer on a multiple-choice item. Because the items on the SAT9 and the DSTP Mathematics test are very different in format (multiple choice vs. multiple choice, short answer, and extended response), they measure very different aspects of mathematics, and their results cannot be directly compared.
- The score for the DSTP Mathematics test is based on a substantially larger number of test items than the score for the SAT9 Mathematics test. This means that the DSTP Mathematics test samples a larger portion of the student's Mathematics skills as defined by the Mathematics Content Standards than does the SAT9.

Appendix A contains a copy of an individual score report containing percentile ranks, and a copy of a school summary report containing percentile ranks.

Performance levels

Performance levels were developed during the fall of 1999. To determine performance level, cut scores were first developed.

Cut point development

During the fall of 1999, a group of 188 participants consisting of 83% teachers, 7% administrators, 9% parents, and 1% of participants from organizations or from the community, met under the guidance of Harcourt Educational Measurement, to develop the "Meets the Standard" and "Exceeds the Standard" cut points. A subset of these participants developed the cut points for mathematics. The methodology used by judges for setting the cut points is referred to as "Item Mapping" by some measurement companies, and "Bookmarking" by other companies. This procedure required several groups of judges to examine a book of DSTP items arranged from the easiest to the most difficult and inserting "bookmarks" at the items they felt most strongly defined where a cut should be placed. Each group of judges worked with a single test at a single grade. Once the judges' recommendations had been finalized, the Department of

Education, with the technical assistance of Harcourt Educational Measurement, calculated the cut points for the "Below the Standard" and "Well Below the Standard" levels, and the cut point for the "Distinguished" performance level.

Performance levels: Mathematics

There are five performance levels in mathematics and writing that are consistent with Delaware's accountability law. The following describe each level:

Performance Level		Described as:
Level 5	Distinguished Performance	Exemplary performance
Level 4	Exceeds the Standard	Very Good
Level 3	Meets the Standard	Good
Level 2	Below the Standard	Needs Improvement
Level 1	Well Below the Standard	Needs Significant Improvement

Cut points: Mathematics

The cut points for the DSTP mathematics Scale Score are as follows:

	Well Below the Standard	Below the Standard	Meets the Standard	Exceeds the Standard	Distinguished Performance
Grade 3	381	382	407	464	499
Grade 5	423	424	449	503	525
Grade 8	468	469	493	531	549
Grade 10	499	500	525	559	574

Each scale score indicates the lowest score on the DSTP a student could earn and still achieve the indicated level. Beginning with this spring 2000 DSTP score results, students who fall into the "Below the Standard" and "Well Below the Standard" in mathematics in grade 8 will be required to have an Individual Improvement Plan (IIP) developed for them.

In the future, the Performance Level for reading and mathematics for each individual student will be used to determine if the student will receive recognition and awards, whether or not the student will attend summer school, be promoted to the next higher grade, or be eligible for a State of Delaware diploma.

Instructional needs

This section of the report provides feedback that depends on what items students in your school or your district answered correctly and incorrectly, and/or how the items were answered. A summary of the number of students and the percentage of students who triggered each comment are provided for your review and analysis.

The intent of the instructional needs comments report is to help principals and teachers see areas in which they might improve or focus instruction. Research has repeatedly confirmed that the single greatest factor in a student's education is the teacher. This being the case, it makes sense that we provide an additional tool for those in the best position to help students achieve at higher levels.

When feasible, we ask principals to encourage their teachers to request classroom reports to more acutely assist their students. While providing instructional needs comments will result in questions from parents, the principals and teachers can take the opportunity to help parents see why this type of reporting represents a significant improvement over more traditional reporting methods.

Reports Generated by the DSTP- OR System

A DSTP-OR system report can be obtained through the Delaware DOE Web site. The site is **secure** and a password is required to access student information. The reports provide student score information for English language arts (reading and writing), mathematics, science, and social studies. There are several reports that may be of special interest to you:

1. List of test scores and/or performance levels of selected students in a classroom or school;
2. Summary report of test scores and/or performance levels of selected students in a classroom or school;
3. Instructional needs report for selected students and/or school.

List of test scores of selected students

Test scores from the 1998, 1999, and 2000 spring tests are available. Students must be selected by name or ID. You will need to select the exact names of students or provide the state-ID numbers of the students to retrieve this information. A request can be made for a report listing all scores (mathematics, reading, writing, science, and social studies), or for a separate report for mathematics, reading, writing, science, or social studies. Additional demographic information such as race, gender, Title I, special education (SPED), LEP status (LEP), and whether their score(s) can be aggregated (AGG) can also be requested. See the listed options in Appendix B. An example of the downloaded EXCEL report can also be found in Appendix B of this guide.

Score and performance information:

- IIP status;
- Reading performance level for each student;
- Reading scaled score for the class;
- Reading percentile rank;
- Reading NCE score;
- Writing performance level;
- Writing raw score;
- Mathematics performance level;
- Mathematics scale score;
- Mathematics percentile rank;
- Mathematics NCE score;
- Science raw score; and
- Social studies raw score.

Each section of the report for English Language Arts test scores is discussed separately.

IIP Status

The results of the spring 2000 mathematics test in grade 8 will determine whether or not students will be required to have an **Individual Improvement Plan (IIP)** for the 2000-2001 school year. Students who fall into the "Below the Standard" and "Well Below the Standard" performance levels will be required to have an IIP. This plan will outline what extra assistance the student will need and how that assistance will be provided by the school. Parents must participate with the school in developing this plan.

Mathematics performance level

There are five performance levels in mathematics that are consistent with Delaware's accountability law. A discussion of the development of mathematics cut scores, the cut scores themselves, and the resultant performance levels can be found on pages 29 to 30 of this document.

Mathematics scaled score

This section contains the mathematics scaled score for each of the students selected. A student's number of correct responses to test items is called a raw score. On the DSTP the mathematics raw scores are converted to scaled scores by use of the Item Response Theory, Rasch Model process. This is a widely accepted scaling procedure

used by testing companies. The primary purpose of converting raw scores to scaled scores is to aid in interpreting students' test results. The scaled scores on the DSTP permit comparison of the scores of a student over time from grade 3 to grade 5 to grade 8 to grade 10. Scaled scores allow an examination of the student's growth over time. Scaling also permits the examination of other trends in performance of **groups of students** over time.

Mathematics percentile rank

This section contains the mathematics percentile rank for each of the students selected. A discussion on the meaning of the percentile rank can be found on pages 28 and 29 of this document.

Mathematics NCE score

This section contains the mathematics NCE (Normal Curve Equivalent) Score. The NCE is a normalized standard score that has a mean of 50 and a standard deviation of 21.06. The NCE standard score ranges from 1 to 99, like that of the percentile rank. In fact, the NCE scores of 1, 50, and 99 are equivalent to percentile ranks of 1, 50, and 99. The other NCE values are distributed somewhat closely to the distribution of the percentile rank and **must be used** to compute the **average** percentile rank of a group of students. To do this, the percentile rank of each student should be converted to an NCE score, the NCE scores are then averaged, and the resultant NCE average converted back to a percentile rank. If you use the DOE system to compute the average percentile rank, the program will automatically do these conversions and give you the **correct** average percentile rank. An example of the conversion table available to you on the website is found in Appendix B.

Summary of test scores of selected students

This report shows the grade level of the selected students, content area (mathematics), each type of score within each of these content areas, the number of students selected, the mean score, standard deviation, and percent at each of the five performance levels for the selected students, for your school, and/or for your district, and for the state. Remember that all these scores are for students at the **same grade level** as your students. The data can also be disaggregated (separated out) by Gender, Race, Title I, LEP, and/or Special Education. Graphs are available to help you better understand the data. See Appendix B for an example of this report.

Instructional needs

Instructional needs reports are also available on the DSTP-OR system. For the group of students selected, the reports provide the number and percent of students who received each indicator comments for reading or writing. There are no instructional needs reports available for an individual student. See Appendix B for an example of this report.

Using the Instructional Needs Reports

Principals

Remember that the school level instructional needs comments report will indicate the number and percentage of students in the school for whom the comments were triggered. This means that the higher the percentage of students indicated as having a need, the more likely it is that additional instruction in that area of the standards will improve test scores.

It should be noted that the mathematics instructional needs comments:

- reflect the Delaware content standards for mathematics;
- are listed in a manner consistent with the Delaware standards for mathematics;
- were developed to **help teachers** examine the instructional needs of their students.

The mathematics standards support approximately twelve broadly stated comments—depending on the grade level—that relate to mathematics. Not all comments are triggered at all grade levels. The comments for the mathematics instructional needs were developed by grouping together several of Delaware's mathematics content standards with similar content. For example, content standards 5 and 6 are reported under the category *Number Concepts*. Standards 7 and 10 are reported under the category *Patterns, Algebra, and Functions*. Following are all the comments that can be triggered by student responses to the mathematics items. They are listed according to grade level so principals and teachers can see the connections and integration of concepts across the curriculum.

Grade 3

Number Concepts

- measuring
- using appropriate computation strategies
- using estimation skills to approximate an answer
- using the concept of place value
- using fractions to represent part of a whole

Patterns, Algebra, and Functions

- using basic number properties such as even/odd, reversibility of multiplication, etc.
- recognizing and extending a variety of patterns

Geometry

- recognizing and transforming geometric figures
- analyzing properties of simple geometric figures

Probability and Statistics

- reading and interpreting simple graphs
- determining the likelihood of simple events

Reasoning and Communication

- solving multi-step problems
- communicating mathematical arguments

Grade 5

Number Concepts

- measuring length or finding the area of simple figures
- using appropriate computation or estimation strategies
- using the concept of place value
- modeling fractions and decimals with situations and pictures
- using mathematical operations with understanding

Patterns, Algebra, and Functions

- using algebraic reasoning
- recognizing and extending a variety of patterns
- reading and interpreting simple graphs

Geometry

- recognizing and transforming geometric figures
- analyzing properties of simple geometric figures

Probability and Statistics

- constructing, reading, and interpreting simple graphs
- determining the likelihood of simple events
- calculating and using the mean (average) of a set of values in meaningful context

Reasoning and Communication

- solving multi-step problems
- communicating mathematical arguments
- reasoning about properties of numbers or geometric figures

Grade 8

Number Concepts

- using estimation skills to approximate an answer
- modeling fractions and decimals with situations and pictures
- determining the equivalence or relative sizes of fractions, decimals, percents, and exponential expressions
- applying the concepts of area and volume

Patterns, Algebra, and Functions

- representing concrete situations using graphs or variables
- recognizing, extending, or generalizing a variety of patterns
- solving simple equations using informal methods

Geometry

- transforming geometric figures
- analyzing properties of geometric figures

Probability and Statistics

- interpreting a variety of statistical graphs
- determining the probability of events

Reasoning and Communication

- solving multi-step problems
- communicating mathematical arguments

Grade 10

Number Concepts

- using mathematical operations, including exponents and roots, with understanding
- finding the area of regions or volumes of space shapes

Patterns, Algebra, and Functions

- using algebra to describe and analyze situations
- constructing and interpreting graphs
- solving equations and inequalities

Geometry

- analyzing and applying properties of geometric figures
- coordinate geometry
- applying right triangle relationships

Probability and Statistics

- determining the probability of events
- analyzing data and graphs

Reasoning and Communication

- multi-step problem solving
- communicating mathematical arguments

Ideas for reflection

Following is a partial list of broadly stated questions that you and your teachers can ask and discuss as you reflect on the instructional needs in an attempt to help students improve. As no two schools are exactly alike, it is our hope that these questions will begin to lead principals and teachers to answers that are specific to the needs of their schools and students.

- Are there areas of instruction that seem to require more attention than they are currently receiving? For example, are probability and statistics integrated into the ninth and tenth grade mathematics curriculum?
- Are the topics that seem to need additional attention actually taught? For example, do six and seventh grade teachers "get to" geometry?
- When topics are presented, does the mode of instruction fit the desired outcomes? For example, do all elementary level students "estimate and then measure" a variety of objects using standard and non-standard units?
- Do teacher questions during instruction elicit higher-order thinking about the mathematics?
- Are students required to explain their work on tests and quizzes in writing or by drawing graphs or charts? Are rubrics used to score student responses?
- Do students need more experience applying concepts in context? Are problem contexts used to promote access for diverse learning?

For the principal to best utilize the information in this part of the report we would recommend the steps below. A brief vignette of a discussion around the geometry standard is included to help illustrate the process.

1. Gather together the teachers from a standards grouping (i.e., K-3, 4-5, 6-8, 9-10/11) to review the comments and the related standards. It is highly desirable that all teachers within a grade cluster participate in the discussions. The accountability system and the DSTP reflect a schools' degree of success at reaching the standards, which is much broader and more comprehensive than a single grade level.

   For example, a principal or administrator could gather a group of middle level mathematics teachers to examine the geometry comments triggered by their students. Teachers should come prepared with the standards, their lesson plans, and their district curriculum guides.

2. Discuss the kinds of practices, assignments, teaching strategies, etc. that teachers are using, and whether or not those practices are in line with the standards and address the comments. Some suggestions are included in the subsequent sections of this guide.

   Examine the comments and the patterns by which they were triggered. In our hypothetical example 25% of the students triggered transforming geometric figures, *and 60% triggered* Analyzing properties of geometric figures. *Teachers should discuss the significance of the results—in this instance it would appear that they have done a fairly good job addressing the need identified in the standards to "recognize, construct, and transform geometric figures." However, it would also appear that some changes may be required if students are to improve at "analyzing properties of and discovering relationships among geometric figures." Teachers should be guided through Mathematics Standard 8, spatial sense and geometry, in an attempt to see where their own curriculum addresses the parts of the standards that the test indicates need to be addressed.*

3. Work through the reports with the groups of teachers, discussing strengths and areas for improvement. All teachers should be reminded that year one of the DSTP is a baseline year and subsequently no value judgments about student performance should be made from test scores, although inferences about the possibilities for improvement are entirely justified. After that, however, if a school seems to have all the comments triggered at about the same rate, teachers should be encouraged to prioritize their efforts so they don't feel as if they have to do everything all at once. Be sure to talk about the kinds of activities that teachers feel would help students in the particular area(s) of the standards where they seem to need some help.

   Discuss the reasons why one of the bullets was triggered more often than the other. Was it a timing issue in the curriculum? Something the adopted text doesn't cover? etc. Is the conversation one that will require teachers from the elementary or the high school and/or the district as well to ensure that

materials covered at one level are built on at the next level rather than just repeated?

Or is it the way the material is being presented? Are students being asked to discover or investigate the properties, as opposed to just listing them to pass a quiz or test? If a close examination reveals that procedural, rather than conceptual knowledge is being valued, what changes are needed to bring conceptual knowledge to the fore?

Also, teachers need to be reminded that no value judgments can or should be made from this information—this simply provides a starting point for the discussion that can help focus efforts over the coming year.

4. Have teachers go through each comment and the related standards in order to discuss what they might say to a parent whose child has had a particular comment triggered. The comments were intentionally written in teacher/standards language, which will be foreign to some parents, and they will need some clarification. Be prepared to explain to parents how you intend to address their concerns in your teaching practices

   Teachers could discuss the changes they intend to make as a result of the scores. For example, schools might make some adjustments to the curriculum by including more activities in geometry, e.g., investigations using computer software, to help students build conceptual knowledge. Teachers could point to those changes and identify that they either have been or will be made with the specific intent of helping the students in a particular area.

5. Have teachers meet regularly throughout the year to review their progress in teaching the standards, working with parents, etc.

   Remind the teachers that change does not occur overnight, that help is available, and then work hard to track progress over time.

This kind of strategy should help principals and teachers make the best use of the instructional needs information, particularly in terms of helping understand the standards and what can be done to help students perform at even higher levels. We would encourage principals and teachers to peruse the data carefully as they make decisions about how and what to teach.

We would also encourage administrators and teachers not to expect easy solutions, quick fixes, or step by step approaches that presume the test has been designed to solve problems—it has not. The DSTP was specifically designed to help identify student strengths and weaknesses, but working to enhance their strengths and to overcome their weaknesses is best placed in the hands of the professionals who instruct students on a daily basis.

Superintendents and Boards of Education

Test scores are a **powerful tool when used properly** by the Chief School Officer and Boards of Education. They provide a measure of progress made and an indicator of

priorities. In the beginning superintendents and school boards should find monitoring the mathematics scores of the schools in their district, as well as the statistics associated with the mathematics instructional needs useful information to drive decision making and resource allocation. This monitoring should be done over time. The best process is one where there is the wisest use of resources.

Caution must be used during the monitoring process. Reaction without thorough analysis of trend data and analysis of the underlying factors that are related to the scores trends would not be prudent. It should be a goal to treat the causes of low mathematics scores, and not the symptoms.

A process that is an excellent first step that can be used by districts seeking to improve achievement is **curriculum alignment**. This activity involves studying what is written about the curriculum, what is taught in the district's classrooms, and what is assessed or tested. District curriculum workers, principals, and teachers should analyze the instructional programs of the district and schools in regard to these elements and then take whatever steps are needed to bring the three into alignment. For example, if a study shows that by the end of a grade cluster, students are expected to be able to use tables and graphs to describe patterns in mathematics then all students must have opportunities to acquire those skills during that cluster.

For districts to conduct alignment activities in mathematics that center on Delaware's content Standards, they will need some documents that are available to all Delaware districts. Alignment teams will need:

- ***New Directions: State of Delaware Mathematics curriculum Framework, 1995;***
- ***Teacher's Desk Reference, Grades 6-8, 1998;***

  and/or

- ***Teacher's Desk Reference, Grades 9-12, 1999;***
- ***Delaware Student Testing Program Item Samplers, 1998 and 1999;***

The 1995 document forms the foundation on which the DSTP is based; however, it should be noted that the performance indicators for mathematics are essentially the same as those found in the frameworks, so that a district could use either in its alignment work. Of course, districts will want to include local curriculum documents in the study as well.

Standards-based alignment also poses a new issue to boards of education, superintendents, and other curriculum planners. In the days before standards, norm reference tests asked students to "identify", or "choose", or "match." This required factual learning and rarely asked students to apply what they were supposed to have learned. The Delaware State Testing Program, grounded as it is in high standards for all learners, asks students, for example, to "analyze," "evaluate," "apply," and more. To help students meet or exceed these high standards and to apply what they have learned requires classrooms in which problem solving, inquiry, and application are

fostered. Often a concentration of instructional programs will help improve scores. This can be explored with principals and teachers in the district.

We would also encourage boards of education, administrators and teachers **not to** expect easy solutions, quick fixes, or step by step approaches that presume the test has been designed to solve problems—it has not. The DSTP was specifically designed to help identify student strengths and weaknesses, but working to enhance their strengths and to overcome their weaknesses is best placed in the hands of the professionals who instruct students on a daily basis.

SECTION IV: Understanding the Science and Social Studies Report

There are two sources of the score reports that are available:

- Individual, school, and district score reports produced by Harcourt Educational Measurement and sent to school administrators; and
- Individual and group score reports that can be produced by the new DSTP-OR secure system.

The reports produced by Harcourt Educational Measurement are automatically sent to school administrators and DOE. Score reports can also be produced via the new DSTP-OR secure system. The system is highly secure and is password protected. To generate an individual or group report, you must supply the name or the state-student ID for each student requested.

Reports Produced by Harcourt Educational Measurement

The individual student and school score reports administrators receive from Harcourt Educational Measurement presently contain three sections of information regarding student performance:

Individual student reports

1. Grade and testing date.
2. The science raw score for each **student** compared to other students at the **same grade level** in the school;

The social studies raw score for each **student** compared to other students at the **same grade level** in the school;

The average science raw score for the **school** (for students in the **same grade level** as the student);

The average social studies raw score for the **school** (for students in the **same grade level** as the student);

The average science raw score for the **district** (for students in the **same grade level** as the student);

The average social studies raw score for the **district** (for students in the **same grade level** as the student);

The average science raw score for the **State of Delaware** (for students in the **same grade level** as the student);

The average social studies raw score for the **State of Delaware** (for students in the **same grade level** as the student);

3. The student's test performance analysis for science; and

   The student's test performance analysis for social studies.

An example of the individual student report is found in Appendix A.

School summary reports

1. Grade and testing date;
2. The average science and social studies raw scores for the **students** in your school compared to:
   - The **district** (for students in the **same grade** as your students);
   - The **State of Delaware** (for students in the **same grade** as your students);
3. A summary of your school's test performance analysis for science and social studies.

Appendix A contains a copy of the school summary report.

District summary reports

1. Grade and testing date;
2. The average science and social studies score for the **students** in your district compared to the **State of Delaware** (for students in the **same grade** as your students);
3. A summary of your district's test performance analysis for science and social studies.

Appendix A contains a copy of the district summary report.

The science and social studies report has three sections of information on student performance, each section is discussed separately.

Grade and Testing Date

Like the English Language Arts and Mathematics Report, this part of the score report provides general information about the administration of the test:

- The grade level (04,06,08, or 11) of the student is reported next to **Grade**, and
- The date your student took this test.

Unlike the reading and mathematics score report, there are no national standardized tests in science and social studies that match the Delaware content standards, thus no national norms are available. Performance levels are not yet available for science and social studies.

Score Comparisons of Grade Tested: Science and Social Studies

This section contains score comparisons of your student's science and social studies scores against all students who took the tests at the **same grade level** in your student's school. The scale on the left is the science score. Remember that your student is being compared with other students in the school at the same grade who took the science test. You can also compare your student's performance to the performance of all same grade students in the district and in the state. The scale on the right is the social studies score and is structured similarly.

The individual student score

In this section you can see how well a student is performing in science and social studies by locating the position of the student's score on the scale. The student's score is the score on the line between the lowest raw score (0) and the maximum raw score (68). Remember that the student is being compared with other students at the **same grade level** in this school who took the test. You can also compare the student's performance to the performance of all same grade students in the district and in the state.

The school score

Also, you can see how all the students in your school are performing in science and in social studies compared to all the **same grade** students in the district or state by examining the position of the school's score on the scale. Remember that these scores reflect performance of students in the **same grade** as your student.

The district score

Also, you can see how all the students at your student's same grade level in your school

district are performing in science and in social studies compared to all the same grade level Delaware students who took the test by examining the position of the district's score on the scale.

The state of Delaware score

In addition, you can see how all the students who took the science and social studies tests in the State of Delaware are performing by examining the position of the state's score on the scale. Remember that these scores reflect performance of all students at the **same grade** level as your student.

Test Performance Analysis

Science

This section provides feedback that reflects the number of points a student received in each of the following areas of science: inquiry, physical science, earth science, and life science. Listed in the left-hand column is the number of points out of a total, and in the right-hand column is the percent of total points students scored in each area.

Social Studies

This section of the report provides feedback that reflects the number of points a student received in each of the following areas of social studies: civics, economics, geography, and history. Listed in the left-hand column is the number of points out of a total, and in the right-hand column is the percent of total points your students scored in each area.

Reports Generated by the DSTP- OR System

A DSTP-OR system report can be obtained through the Delaware DOE Web site. The site is **secure** and a password is required to access student information. The reports provide student score information for science, social studies, English language arts (reading and writing), and mathematics. There are several reports that may be of special interest to you:

1. List of test scores of selected students in your classroom or school;
2. Summary of test scores of selected students in your classroom or school;

List of test scores of selected students

This list provides student score information regarding the performance of **EACH** of the students you request in science, social studies, reading, writing, and/or mathematics plus additional information such as district codes (District Te), school codes (School Te), gender, race, Title I reading (TIR), Title I math (TIM), special education (SPED), LEP status (LEP), Low-income (Low-Inco), and whether their score(s) can be aggregated (AGG). You will need to provide the exact names or the state ID numbers

of the students in your class to retrieve information. An example of this type of report is found in Appendix B.

Score and performance information:

- Science raw score;
- Social studies raw score;
- Reading performance level for each student;
- Reading scaled score for the class;
- Reading percentile rank;
- Reading NCE score;
- Mathematics performance level;
- Mathematics scale score;Mathematics percentile rank;
- Mathematics NCE score;
- Writing performance level; and
- Writing raw score.

Each section of the Science and Social Studies test scores is discussed separately.

Science raw score

This section contains the science raw score for each of the students in your class. The students' science scores range from 0 to 68. Listed under "CONTENT AREA" on the report are the four sub-areas assessed by the science test: inquiry, physical science, earth science, and life science. For each of the sub-areas the number of points earned out of a total number of points and the percent of total points is reported. Note that to compute the average percent over all sub-areas, summing the total points earned and dividing by 68 is the appropriate method to use. Do not average the **percent of total points** because you will **not get the correct answer**.

Social studies raw score

This section contains the social studies raw score for each of the students in your class. The students' social studies scores range from 0 to 68. Listed under "CONTENT AREA" on the report are the four sub-areas assessed by the social studies test: civics, economics, geography, and history. For each of the sub-areas the number of points earned out of a total number of points and the percent of total points is reported. Note that to compute the average percent over all sub-areas, summing the total points earned and dividing by 68 is the appropriate method to use. Do not average the **percent of total points** because you will **not get the correct answer**.

Summary of test scores of selected students

This report shows the grade level of your students, content area (science and social studies, reading, writing, and mathematics), each type of score within each of these content areas (and their sub-areas where appropriate), the number of students in your class, the mean score, standard deviation, and for English language arts and mathematics, the percent at each of the five performance levels for your class, your school, your district, and the state. Remember that all these scores are for students at the **same grade level** as your students. The data can also be disaggregated (separated out) by Gender, Race, Title I, Low-Income, LEP, and/or Special Education. Graphs are available to help you better understand the data.

Using the Test Performance Analysis

Principals

Remember that the school level test performance analyses will indicate the number of possible points and the mean (average) number of points your students received for each sub-area in science and in social studies.

Science

Every sub-area reported in the test performance analysis results is tied to one or more of the Delaware science standards. Inquiry in science is reflected in standard one of the science standards; physical science is reflected in standards two and three; earth science in standards four and five; and life science in standards six, seven, and eight. The test performance analysis will indicate the number of possible points and average number of points earned in each of these sub-areas. This means that the lower the average number of points earned by students, the more likely it is that additional instruction in that area(s) of the standards will improve test scores.

Ideas for reflection

Following is a partial list of broadly stated questions that you and your teachers can ask and discuss as you reflect on the science test performance analysis. As no two schools are exactly alike, it is our hope that these questions will begin to lead principals and teachers to answers that are specific to the needs of their schools and students.

- Are there areas that are not actually being taught?
- Are there areas of instruction that that need more attention than they are currently receiving?
- When areas are presented, does the mode of instruction fit the desired outcomes?
- During instruction, does the teacher ask for explanations and/or require students to provide evidence about the science concepts taught?
- Are students required to collect, organize, and analyze data?

- Do students need more experience applying concepts across earth, physical, and life sciences?
- Do teachers administer test questions in class similar to those on the DSTP? (See item sampler for science on the DOE website.)

Using the information

To best utilize the information we would recommend the steps below:

1. Meet with teachers from a standards grouping (i.e., K-3, 4-5, 6-8, 9-12) to review the analyses. It is highly desirable that all teachers within a grade cluster participate in the discussions. The accountability system and the DSTP reflect the degree of success at reaching the standards, which are much broader and more comprehensive than a single grade level.
2. Discuss the kinds of practices, assignments, teaching strategies, etc. that the teachers are using, and whether or not those practices are in line with the standards and address the comments.
3. Work through the analyses with the groups of teachers, discussing strengths and areas for improvement. Teachers should be encouraged to move forward and to prioritize their efforts so they don't feel as if they have to do everything all at once. Be sure to talk about the kinds of activities that teachers feel would help students in the particular area(s) of the standards where they seem to need some help.
4. Go through each area analyzed and the related standards to discuss what you and your teachers might say to a parent whose child has had a problem in that area. Teachers should be prepared to explain to parents how they intend to address parental concerns in their teaching practices.
5. Meet regularly throughout the year to review progress in teaching the standards, working with parents, etc.

This kind of strategy should help you and your teachers make the best use of the test performance analysis data, particularly in terms of helping understand the standards and what teachers can do to help students perform at even higher levels. We would encourage everyone to peruse the data carefully as they make decisions about how and what to teach.

We would also encourage you and your teachers not to expect easy solutions, quick fixes, or step by step approaches that presume the test has been designed to solve problems—it has not. The DSTP was specifically designed to help identify student strengths and weaknesses, but working to enhance their strengths and to overcome their weaknesses is best placed in the hands of the professionals who instruct students on a daily basis.

Social Studies

Every sub-area reported in the test performance analysis results is tied the Delaware social studies standards. The sub-areas tested include civics, economics, geography, and history. The test performance analysis will indicate the number of possible points

and average number of points earned in each of these sub-areas. This means that the lower the average number of points earned by students, the more likely it is that additional instruction in that area(s) of the standards will improve test scores.

Ideas for reflection

Following is a partial list of broadly stated questions that you and your teachers can ask and discuss as you reflect on the social studies test performance analysis. As no two schools are exactly alike, it is our hope that these questions will begin to lead principals and teachers to answers that are specific to the needs of their schools and students.

- Are there content areas that seem to require more attention than they are currently receiving?
- Are there content areas that could be integrated into social studies instruction?
- Does the mode of instruction fit the desired outcomes?
- Do teacher questions during instruction elicit higher-order thinking as reflected in the social studies standards?
- Are students required to think using social studies data, such as graphs, maps, charts, artifacts, and documents?
- Are students required to explain their work on tests and quizzes in writing or by drawing diagrams, graphs, or charts? Are rubrics used to score students responses?
- Do students need more experience applying concepts in context? Are problem contexts used to promote access for diverse learning?
- Do teachers administer tests that require application of knowledge?
- Do teachers administer test questions in class similar to those on the DSTP? (See item sampler for social studies on the DOE website.)

Using the information

To best utilize the information we would recommend the steps below:

1. Meet with teachers from a standards grouping (i.e., K-3, 4-5, 6-8, 9-12) to review the analyses. It is highly desirable that all teachers within a grade cluster participate in the discussions. The accountability system and the DSTP reflect the degree of success at reaching the standards, which are much broader and more comprehensive than a single grade level.
2. Discuss the kinds of practices, assignments, teaching strategies, etc. that the teachers are using, and whether or not those practices are in line with the standards and address the comments.
3. Work through the analyses with the groups of teachers, discussing strengths and areas for improvement. Teachers should be encouraged to move forward and to prioritize their efforts so they don't feel as if they have to do everything all at once. Be sure to talk about the kinds of activities that teachers feel would help

students in the particular area(s) of the standards where they seem to need some help.

4. Go through each area analyzed and the related standards to discuss what you and your teachers might say to a parent whose child has had a problem in that area. Teachers should be prepared to explain to parents how they intend to address parental concerns in their teaching practices.

5. Meet regularly throughout the year to review progress in teaching the standards, working with parents, etc.

This kind of strategy should help you and your teachers make the best use of the test performance analysis data, particularly in terms of helping understand the standards and what teachers can do to help students perform at even higher levels. We would encourage everyone to peruse the data carefully as they make decisions about how and what to teach.

We would also encourage you and your teachers not to expect easy solutions, quick fixes, or step by step approaches that presume the test has been designed to solve problems—it has not. The DSTP was specifically designed to help identify student strengths and weaknesses, but working to enhance their strengths and to overcome their weaknesses is best placed in the hands of the professionals who instruct students on a daily basis.

Superintendents and Boards of Education

Test scores are a **powerful tool when used properly** by the Chief School Officer and Boards of Education. They provide a measure of progress made and an indicator of priorities. In the beginning, superintendents and school boards should find monitoring the science and social studies scores of the schools in their district, as well as the statistics associated with the science and social studies test performance analysis useful information to drive decision making and resource allocation. This monitoring should be done over time. The best process is one where there is the wisest use of resources. Caution must be used during the monitoring process. Reaction without thorough analysis of trend data and analysis of the underlying factors that are related to the scores trends would not be prudent. It should be a goal to treat the causes of low science or social studies scores, and not the symptoms.

A process that is an excellent first step that can be used by districts seeking to improve achievement is **curriculum alignment**. This activity involves studying what is written about the curriculum, what is taught in the district's classrooms, and what is assessed or tested. District curriculum workers, principals, and teachers should analyze the instructional programs of the district and schools in regard to these elements and then take whatever steps are needed to bring the three into alignment. For example, if a study shows that by the end of a grade cluster, students are expected to be able to use tables and graphs to describe patterns in science or social studies, then all students must have opportunities to acquire those skills during that cluster.

For districts to conduct alignment activities in mathematics that center on Delaware's content Standards, they will need some documents that are available to all Delaware districts. Alignment teams will need:

- ***New Directions: State of Delaware Social Studies Curriculum Framework, 1995;***
- ***New Directions: State of Delaware Science Curriculum Framework, 1995;***
- ***Teacher's Desk Reference, Grades 6-8, 1998;***

  and/or

- ***Teacher's Desk Reference, Grades 9-12, 1999;***
- ***Delaware Student Testing Program Item Samplers, 1998 and 1999;***

The 1995 document forms the foundation on which the DSTP is based; however, it should be noted that the performance indicators for science and social studies are essentially the same as those found in the frameworks, so that a district could use either in its alignment work. Of course, districts will want to include local curriculum documents in the study as well.

Standards-based alignment also poses a new issue to boards of education, superintendents, and other curriculum planners. In the days before standards, norm reference tests asked students to "identify", or "choose", or "match." This required factual learning and rarely asked students to apply what they were supposed to have learned. The Delaware State Testing Program, grounded as it is in high standards for all learners, asks students, for example, to "analyze," "evaluate," "apply," and more. To help students meet or exceed these high standards and to apply what they have learned requires classrooms in which problem solving, inquiry, and application are fostered. Often a concentration of instructional programs will help improve scores. This can be explored with principals and teachers in the district.

We would also encourage boards of education, administrators and teachers **not to** expect easy solutions, quick fixes, or step by step approaches that presume the test has been designed to solve problems—it has not. The DSTP was specifically designed to help identify student strengths and weaknesses, but working to enhance their strengths and to overcome their weaknesses is best placed in the hands of the professionals who instruct students on a daily basis.

Appendix A: Sample Written Reports

Following are samples of the various reports from the 2000 administration of the DSTP. The reports included are:

A1: English Language Arts Individual Report (Reading and Writing)

A2: Mathematics Individual Report

A3: Science & Social Studies Individual Report

A4: English Language Arts (Reading and Writing) School Summary Report

A5: Mathematics School Summary Report

A6: English Language Arts (Reading and Writing) District Summary Report

A7: Mathematics District Summary Report

A8: English Language Arts (Reading and Writing) Summary Report for the State of Delaware

A9: Mathematics Summary Report for the State of Delaware

2000 DELAWARE STUDENT TESTING PROGRAM
English Language Arts Individual Report for

Student ID#

SCHOOL
DISTRICT

GRADE 05
TEST DATE 04/03/00
SAT9 LEVEL/FORM 12/T
SAT9 NORMS 1995 ES

PERFORMANCE LEVELS

This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Reading and Writing performance of this student falls into one of the five levels.

Performance Levels are:	Reading Level and score	Writing Level and score
Distinguished		
Exceeds the standard		
Meets the standard		✓ 8.00
Below the standard	✓ 444	
Well below the standard		

SCORE COMPARISONS OF GRADE TESTED

	Reading		Writing	
Student	175	444	1	8.00
School	175	464	1	6.62
District	175	464	1	6.62
State	175	470	1	6.78

Certain items on the Reading part of the test were administered to a national sample of students. The percentile below represents how your child performed on those items compared to other students in the same grade throughout the country.

1 — 38 — 99

INSTRUCTIONAL NEEDS

To achieve a higher level in READING, your child should work on:

- *providing enough details from the text to answer open ended questions*
- *reading more carefully to retell or restate information from the text*
- *understanding the central ideas in a text*
- *using information to make interpretations*
- *drawing conclusions and using critical thinking to connect and synthesize information within and across text, ideas, and concepts*
- *using text to formulate, express, and support opinions*

To achieve a higher level in WRITING, your child should work on:

- *organizing the writing around a single topic with an introduction, closing and some transitions*
- *working to avoid errors in conventions of English usage, grammar, spelling and punctuation that interfere with understanding*
- *supporting the ideas with more specific details*
- *doing more than making generalities regarding the prompt*

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2000 DELAWARE STUDENT TESTING PROGRAM

Mathematics Individual Report for

Student ID#:

SCHOOL:
DISTRICT:

GRADE: 05
TEST DATE: 03/01/00
SAT9 LEVEL/FORM: 12/1
SAT9 NORMS: 1995 US

PERFORMANCE LEVELS

This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Mathematics performance of this student falls into one of the five levels.

Performance Levels are:	Mathematics Level and score
Distinguished	
Exceeds the standard	
Meets the standard	
Below the standard	
Well Below the standard	✓ 419

SCORE COMPARISONS OF GRADE TESTED

Mathematics

Student	175	419	700
School	175	452	700
District	175	452	700
State	175	460	700

Certain items on the Mathematics part of the test were administered to a national sample of students. The percentile below represents how your child performed on those items compared to other students in the same grade throughout the country.

1 | 16 | 99

INSTRUCTIONAL NEEDS

To achieve a higher level in MATHEMATICS, your child should work on:

Number Concepts
- *using computation or estimation strategies with understanding*
- *using the concept of relative size of numbers*
- *modeling fractions and decimals with situations and pictures*
- *using estimation skills to approximate an answer*

Patterns, Algebra, and Functions
- *using algebraic reasoning*
- *recognizing and extending a variety of patterns*

Geometry
- *recognizing and transforming geometric figures*
- *analyzing properties of simple geometric figures*

Probability and Statistics
- *determining the likelihood of simple events*
- *calculating and using the mean (average) of a set of values in a meaningful context*

Reasoning and Communication
- *using mathematical reasoning to solve multi-step problems*
- *communicating mathematical arguments*

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2000 DELAWARE STUDENT TESTING PROGRAM
Science & Social Studies Individual Report for

JOHN DOE
Student ID# 000000

SCHOOL: SPRINGFIELD MIDDLE 000
DISTRICT: SPRINGFIELD 00

GRADE 08
TEST DATE 05/02/00

PERFORMANCE LEVELS

This test is designed to measure your child's progress in terms of the Delaware Content Standards. The Science and Social Studies performance of this student falls into one of five levels.

Performance Levels are:	Science level and score	Social Studies level and score
Distinguished		
Exceeds the standard	NOT YET AVAILABLE	
Meets the standard		
Below the standard		
Well Below the standard		

COMPARISONS OF TOTAL POINTS EARNED

	Science			Social Studies		
Student	0	41	68	0	38	68
School	0	39	68	0	40	68
District	0	38	68	0	40	68
State	0	37	68	0	36	68

CONTENT AREAS

SCIENCE	Points Earned	Percent of Total Points
Inquiry	5 out of 11 points	45
Physical Science	11 out of 19 points	58
Earth Science	9 out of 16 points	56
Life Science	16 out of 22 points	73

SOCIAL STUDIES	Points Earned	Percent of Total Points
Civics	8 out of 17 points	47
Economics	10 out of 17 points	59
Geography	11 out of 17 points	65
History	9 out of 17 points	53

COPY XX

Please see your child's teacher for more information

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2000 DELAWARE STUDENT TESTING PROGRAM
English Language Arts Summary Report for

School Code:

DISTRICT:

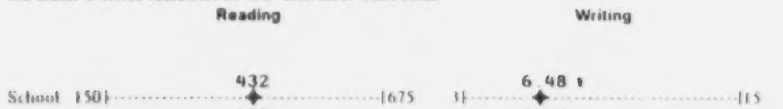
GRADE: 01
TEST DATE: 03 01 00
SAT9 LEVEL/FORM: P1/E
SAT9 NORMS: 1995 ES

PERFORMANCE LEVELS

This test is designed to measure students' progress in terms of the Delaware Content Standards. The number and percent of students in this grade at each of the five Performance Levels for this group is reported below.

Performance Levels are:	Reading Level N	Reading Level %	Writing Level N	Writing Level %
Distinguished	13	10	0	0
Exceeds the standard	12	9	2	2
Meets the standard	72	53	55	43
Below the standard	28	21	64	50
Well Below the standard	11	8	7	5

SCORE COMPARISONS OF GRADE TESTED



Certain items on the Reading part of the test were administered to a national sample of students. The percentile below represents how the typical student in the group performed on those items compared to other students in the same grade throughout the country.

INSTRUCTIONAL NEEDS

READING

N	%	
131	96	• *providing enough details from the text to answer open-ended questions*
89	65	• *reading more carefully to retell or restate information from the text*
87	64	• *using strategies to understand the text*
77	57	• *understanding the central ideas in a text*
96	71	• *drawing conclusions and using critical thinking to connect and synthesize information within and across text, ideas, and concepts*
123	90	• *making, supporting, and extending inferences about contents, events, characters, setting, theme, and style*
0	0	• *continuing use of good reading strategies. Congratulations!*

WRITING

N	%	
71	55	• *organizing the writing around a single topic or central idea* • *writing in complete sentences with a variety of length and structure* • *working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding* • *doing more than restating the prompt*
51	40	• *organizing the writing around a single topic with an introduction, closing, and some transitions* • *working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding* • *supporting the ideas with more specific details* • *doing more than making generalities regarding the prompt*
6	5	• *using an effective introduction and closing* • *writing in a consistent style with precise, vivid word choice* • *writing with a clear, logical progression of ideas using smooth transitions* • *including relevant details that are fully elaborated*
0	0	*Congratulations on an excellent performance on at least one of the two writing prompts. The comments below are to encourage the student to strive for excellence by* • *continuing to write using distinctive voice and style* • *showing an exceptional awareness of readers' needs*

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2000 DELAWARE STUDENT TESTING PROGRAM
Mathematics Summary Report for
DELAWARE

GRADE 03
TEST DATE 05/01/00
SAT-9 LEVEL/FORM F/1
SAT-9 NORMS 1995 US

PERFORMANCE LEVELS

This test is designed to measure students' progress in terms of the Delaware Content Standards. The number and percent of students in this grade at each of the five Performance Levels for this group is reported below.

Performance Levels are:	Mathematics Level N	%
Distinguished	428	5
Exceeds the standard	1,213	15
Meets the standard	4,102	52
Below the standard	1,328	17
Well Below the standard	825	10

SCORE COMPARISONS OF GRADE TESTED

Mathematics

State 431 (150 – 1650)

Certain items on the Mathematics part of the test were administered to a national sample of students. The percentile below represents how the typical student in the group performed on those items compared to other students in the same grade throughout the country.

68 (1 – 99)

INSTRUCTIONAL NEEDS

MATHEMATICS

N	%	
		Number Concepts
3988	51	• *measuring*
3139	40	• *using computation strategies with understanding*
2911	37	• *using estimation skills to approximate an answer*
1258	16	• *using the concept of place value*
1533	19	• *using fractions to represent part of a whole*
		Patterns, Algebra, and Functions
1019	13	• *using basic number properties such as even/odd, reversibility of multiplication, etc.*
2171	27	• *recognizing and extending a variety of patterns*
		Geometry
1105	14	• *recognizing and transforming geometric figures*
3906	50	• *analyzing properties of simple geometric figures*
		Probability and Statistics
2168	27	• *constructing, reading, and interpreting simple graphs*
589	7	• *determining the likelihood of simple events*
		Reasoning and Communication
2272	29	• *using mathematical reasoning to solve multi-step problems*
3222	41	• *communicating mathematical arguments*

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2000 DELAWARE STUDENT TESTING PROGRAM
English Language Arts Summary Report for

District Code:

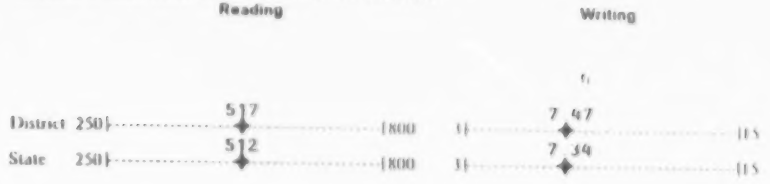
GRADE: 10
TEST DATE: 02 01 00
SAT9 LEVEL/FORM: 12 E
SAT9 NORMS: 1995 ES

PERFORMANCE LEVELS

This test is designed to measure students' progress in terms of the Delaware Content Standards. The number and percent of students in this grade at each of the five Performance Levels for this group is reported below.

Performance Levels are:	Reading Level N	Reading Level %	Writing Level N	Writing Level %
Distinguished	1	0	0	0
Exceeds the standard	5	2	1	0
Meets the standard	169	67	132	54
Below the standard	52	21	94	38
Well Below the standard	24	10	18	7

SCORE COMPARISONS OF GRADE TESTED



Certain items on the Reading part of the test were administered to a national sample of students. The percentile below represents how the typical student in the group performed on these items compared to other students in the same grade throughout the country.

INSTRUCTIONAL NEEDS

READING:

N	%	
210	87	• *providing enough details from the text to answer open-ended questions*
67	28	• *reading more carefully to retell or restate information from the text*
108	45	• *using strategies to understand the text*
118	47	• *understanding the central ideas in a text*
154	62	• *using information to make interpretations*
94	37	• *drawing conclusions and using critical thinking to connect and synthesize information within and across text, ideas, and concepts*
200	83	• *understanding the effects of author's techniques and decisions*
200	83	• *using text to formulate, express, and support opinions*
88	36	• *making, supporting, and extending inferences about contents, events, characters, setting, theme, and style*
2	1	• *continuing use of good reading strategies. Congratulations!*

WRITING:

N	%	
68	28	• *organizing the writing around a single topic or central idea* • *writing in complete sentences with a variety of length and structure* • *working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding* • *doing more than restating the prompt*
167	68	• *organizing the writing around a single topic with an introduction, closing, and some transitions* • *working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding* • *supporting the ideas with more specific details* • *doing more than making generalities regarding the prompt*
18	7	• *using an effective introduction and closing* • *writing in a consistent style with precise, need-word choice* • *writing with a clear, logical progression of ideas using smooth transitions* • *including relevant details that are fully elaborated*
0	0	*Congratulations on an excellent performance on at least one of the two writing prompts. The comments below are to encourage the student to strive for excellence by* • *continuing to write using distinctive voice and style* • *showing an exceptional awareness of readers' needs*

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2000 DELAWARE STUDENT TESTING PROGRAM
Mathematics Summary Report for

District Code:

GRADE	10
TEST DATE	04/03/00
SAT9 LEVEL/FORM	L/1
SAT9 NORMS	1995 US

PERFORMANCE LEVELS

This test is designed to measure students' progress in terms of the Delaware Content Standards. The number and percent of students in this grade at each of the five Performance Levels for this group is reported below.

Performance Levels are:	Mathematics Level N	%
Distinguished	8	3
Exceeds the standard	9	4
Meets the standard	66	26
Below the standard	76	30
Well Below the standard	91	36

SCORE COMPARISONS OF GRADE TESTED

Mathematics

Certain items on the Mathematics part of the test were administered to a national sample of students. The percentile below represents how the typical student in the group performed on those items compared to other students in the same grade throughout the country.

INSTRUCTIONAL NEEDS

MATHEMATICS:

N	%	
		Number Concepts
128	51	• *using mathematical operations, including those involving exponents, roots, and matrices with understanding*
207	83	• *finding the area of regions or volumes of space shapes*
		Patterns, Algebra, and Functions
184	74	• *using algebra to describe and analyze situations*
179	72	• *constructing and interpreting graphs*
156	62	• *solving equations and inequalities*
		Geometry
235	94	• *analyzing and applying properties of geometric figures*
123	49	• *coordinate geometry*
155	62	• *applying right triangle relationships*
		Probability and Statistics
168	67	• *determining the probability of events*
162	65	• *analyzing data and graphs*
		Reasoning and Communication
221	88	• *using mathematical reasoning to solve multi-step problems*
208	80	• *communicating mathematical arguments*

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2000 DELAWARE STUDENT TESTING PROGRAM
English Language Arts Summary Report for
DELAWARE

GRADE 03
TEST DATE 04/01/00
SAT9 LEVEL/FORM PCT
SAT9 NORMS 1995 ES

PERFORMANCE LEVELS

This test is designed to measure students' progress in terms of the Delaware Content Standards. The number and percent of students in this grade at each of the five Performance Levels for this group is reported below.

Performance Levels are:	Reading Level N	Reading Level %	Writing Level N	Writing Level %
Distinguished	976	12	5	0
Exceeds the standard	936	12	43	1
Meets the standard	4,148	53	2,723	36
Below the standard	1,814	13	3,674	49
Well Below the standard	817	10	1,073	14

SCORE COMPARISONS OF GRADE TESTED

Certain items on the Reading part of the test were administered to a national sample of students. The percentile below represents how the typical student in the group performed on those items compared to other students in the same grade throughout the country.

INSTRUCTIONAL NEEDS

READING:

N	%	
7715	98	• *providing enough details from the text to answer open-ended questions*
4450	56	• *reading more carefully to retell or restate information from the text*
4931	62	• *using strategies to understand the text*
3751	48	• *understanding the central ideas in a text*
4806	61	• *drawing conclusions and using critical thinking to connect and synthesize information within and across text, ideas, and concepts*
6748	85	• *making, supporting, and extending inferences about contents, events, characters, setting, theme, and style*
0	0	• *continuing use of good reading strategies. Congratulations!*

WRITING:

N	%	
4747	63	• *organizing the writing around a single topic or central idea* • *writing in complete sentences with a variety of length and structure* • *working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding* • *doing more than restating the prompt*
2607	35	• *organizing the writing around a single topic with an introduction, closing, and some transitions* • *working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding* • *supporting the ideas with more specific details* • *doing more than making generalities regarding the prompt*
159	2	• *using an effective introduction and closing* • *writing in a consistent style with precise, vivid word choice* • *writing with a clear, logical progression of ideas using smooth transitions* • *including relevant details that are fully elaborated*
5	0	Congratulations on an excellent performance on at least one of the two writing prompts. The comments below are to encourage the student to strive for excellence by: • *continuing to write using distinctive voice and style* • *showing an exceptional awareness of readers' needs*

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2000 DELAWARE STUDENT TESTING PROGRAM

Mathematics Summary Report for DELAWARE

GRADE 03
TEST DATE 02 DE 00
SAT9 LEVEL/FORM P/E
SAT9 NORMS 1995 ES

PERFORMANCE LEVELS

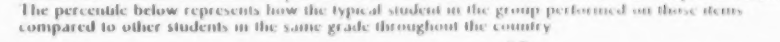
This test is designed to measure students' progress in terms of the Delaware Content Standards. The number and percent of students in this grade at each of the five Performance Levels for this group is reported below.

Performance Levels are:	Mathematics Level N	%
Distinguished	428	5
Exceeds the standard	1,213	15
Meets the standard	4,102	52
Below the standard	1,328	17
Well Below the standard	825	10

SCORE COMPARISONS OF GRADE TESTED

Mathematics

Certain items on the Mathematics part of the test were administered to a national sample of students. The percentile below represents how the typical student in the group performed on those items compared to other students in the same grade throughout the country.



INSTRUCTIONAL NEEDS

MATHEMATICS

N	%	
		Number Concepts
5988	61	• *measuring*
5139	48	• *using computation strategies with understanding*
2911	37	• *using estimation skills to approximate an answer*
1258	16	• *using the concept of place value*
1533	19	• *using fractions to represent part of a whole*
		Patterns, Algebra, and Functions
1019	13	• *using basic number properties such as even/odd, reversibility of multiplication, etc.*
2171	27	• *recognizing and extending a variety of patterns*
		Geometry
1105	14	• *recognizing and transforming geometric figures*
5006	58	• *analyzing properties of simple geometric figures*
		Probability and Statistics
2168	27	• *constructing, reading, and interpreting simple graphs*
589	7	• *determining the likelihood of simple events*
		Reasoning and Communication
2272	29	• *using mathematical reasoning to solve multi-step problems*
5222	61	• *communicating mathematical arguments*

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Appendix B: Sample DSTP-OR Reports

Following are samples of the various on-line reports from the 2000 administration of the DSTP. **They do not contain real data.** The reports included are:

B1: DSTP-OR Screen of Available Reports by Year

B2: DSTP-OR Screen of Reports and Lists Available for the Selected Students as a Group

B3: DSTP-OR List of Test Scores of Selected Students in EXCEL Format

B4: DSTP-OR Instructional Needs Reports in EXCEL Format

B5: DSTP-OR Summary of Test Scores of Selected Students

B6: Table of Percentile Ranks Corresponding to National Curve Equivalent Ranges

B1: DSTP-OR Screen of Available Reports by Year

DELAWARE
STUDENT TESTING PROGRAM
ONLINE REPORTS
DELAWARE DEPARTMENT OF EDUCATION

To enter DSTP-OR...
- you must have MS Internet Explorer 4 or higher or Netscape Navigator 3 or higher as your browser,
- cookies must be enabled,
- and if you wish to access individual student testing information, you must have a valid username and password.

Back to access screen • How to get a password • Browsers
Cookies • Troubleshooting • Contacts
DSTP Home • DOE Home

Welcome to DSTP-OR, the Delaware Student Testing Program Online Reports. These reports are designed to provide meaningful, helpful, accurate, and timely feedback to educators and the public in order to promote the highest quality education for every Delaware student. DSTP-OR has a publicly-accessible section for finding test scores and performance level data by school, district, or state using a number of demographic factors. Furthermore, there is a password-protected section for authorized educators to find individual student and group DSTP information and scores.

How to get a password
A DSTP-OR Access Request Form is available for those educators wishing to use the password-protected Online Reports. The form must be signed by the applicant and by the principal (for building-level access) or the superintendent (for district-level access).

Browsers
In order to use DSTP-OR and all of its features you will need **Microsoft Internet Explorer 4 or higher.** Others may work, but if you contact us for help, we can assist you better if you the listed browsers.

Update Microsoft Internet Explorer

Cookies
In order to use DSTP-OR you must allow the use of cookies. Cookies are strings of text placed on your computer by a web server for a variety of purposes (visit Cookie Central for more detail). DSTP-OR uses cookies to distinguish your query session from other users' sessions and for security purposes.

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B2: DSTP-OR Screen of Reports and Lists Available for the Selected Students as a Group

DSTP-OR

DSTP-OR Home | Group Reports | IIP | Logoff | Codes

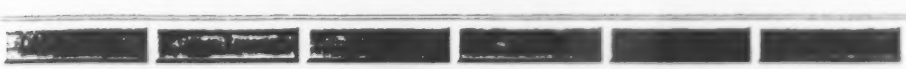
Student selection is completed

13 students' Spring 2000 DSTP records are selected.

Reports and lists available for the selected students as a group:

- Score Listings:
  - Reading Scores Listing **with** or **without** demographic information
  - Math Scores Listing **with** or **without** demographic information
  - Writing Scores Listing **with** or **without** demographic information
  - Performance Levels Listing **with** or **without** demographic information
  - All Scores Listing **with** or **without** demographic information
- Summary Reports:
  - **For Entire Group**
  - **Disaggregated**
    - **By Race**
    - **By Gender**
    - **By Special-Ed**
    - **By LEP**
    - **By Title 1**
- Instructional Needs Reports:
  - **For Entire Group**
  - **Disaggregated**
    - **By Race**
    - **By Gender**
    - **By Special-Ed**
    - **By LEP**
    - **By Title 1**

Get a New Group **Modify Search Condition** **Upload ID File**



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B3: DSTP-OR List of Test Scores of Selected Students in EXCEL Format

Spring 2000 List of Reading Scores of Selected Students

ID	Student Name	Reading Performance Level	Reading Scale Score	Reading Percentile Rank	Reading NCE Score	IIP	District Tested	School Tested
1	AA	3	482	73	62.9		11	99
2	BB	3	467	27	37.1		11	99
3	CC	3	495	78	66.3		11	99
4	DD	3	491	73	62.9		11	99
5	EE	2	431	23	34.4		11	99
6	FF	3	495	43	46.3		11	99
7	GG	1	416	13	26.3		11	99
8	HH	1	424	20	32.3		11	99
9	II	3	467	35	41.9		11	99
10	JJ	3	488	43	46.3		11	99
11	KK	3	495	49	49.5		11	99
12	LL	3	473	73	62.9		11	99
13	MM	2	431	13	26.3		11	99
14	NN	3	465	30	39		11	99
15	OO	5	543	67	59.3		11	99
16	PP	1	419	20	32.3		11	99
17	QQ	5	532	84	70.9		11	99
18	RR	3	459	30	39		11	99
19	SS	5	556	99	99		11	99
20	TT	2	444	38	43.6		11	99
21	UU	3	502	78	66.3		11	99
22	VV	3	495	61	55.9		11	99
23	WW	3	491	49	49.5		11	99

B4: DSTP-OR Instructional Needs Reports in EXCEL Format

Spring 2000 Instructional Needs Report for Selected School

District	School	Grade	Group	Content	N Active	% Active	Indicator
AA	BB	10	All Students	Reading	233	79.25	Providing enough details from the text to answer open-ended questions.
					68	23.13	Reading more carefully to retell or restate information from the text.
					134	45.58	Using strategies to understand the text.
					132	44.9	Understanding the central ideas in a text.
					159	54.08	Using information to make interpretations.
					106	36.05	Drawing conclusions and using critical thinking to connect and synthesize information within and across text, ideas, and concepts.
					228	77.55	Understanding the effects of author's techniques and decisions.
					214	72.79	Using text to formulate, express and support opinions.
					108	36.73	Making, supporting and extending inferences about contents, events, characters, setting, theme, and style.
					7	2.381	Continuing use of good reading strategies. Congratulations!
				Math	160	55.56	Using mathematical operations, including those involving exponents, roots, and matrices with understanding.
					196	68.06	Finding the area of regions or volumes of space shapes.
					191	66.32	Using algebra to describe and analyze situations.
					192	66.67	Constructing and interpreting graphs.
					149	51.74	Solving equations and inequalities.
					230	79.86	Analyzing and applying properties of geometric figures.
					141	48.96	Coordinate geometry.
					142	49.31	Applying right triangle relationships.
					178	61.81	Determining the probability of events.
					131	45.49	Analyzing data and graphs.
					223	77.43	Using mathematical reasoning to solve multi-step problems.
					177	61.46	Communicating mathematical arguments.
				Writing	90	31.91	Organizing the writing around a single topic or central idea

District	School	Grade	Group	Content	N Active	% Active	Indicator
					90	31.91	Writing in complete sentences with a variety of length and structure
					248	87.94	Working to avoid errors in conventions of English usage, grammar, spelling, and punctuation and interfere with understanding
					90	31.91	Doing more than restating the prompt
					158	56.03	Organizing the writing around a single topic with an introduction, closing, and some transitions
					158	56.03	Working to avoid errors in conventions of English usage, grammar, spelling, and punctuation that interfere with understanding
					158	56.03	Supporting the ideas with more specific details
					33	11.7	Doing more than making generalities regarding the prompt
					33	11.7	Using an effective introduction and closing
					33	11.7	Writing with a clear, logical progression of ideas using smooth transitions
					0	0	Including relevant details that are fully elaborated
					0	0	Continuing to write using distinctive voice and style
					0	0	Showing an exceptional awareness of readers' needs

B5: DSTP-OR Summary of Test Scores of Selected Students

Spring 2000: Summary of Test Scores of Selected Students

School:
District:
Group:

Other Lists and Reports

Grade	Content	Group	Summary Statistics			Percent at Each Performance Level				
			N Count	Mean	St Dev	5	4	3	2	1
8	Reading Scale Score	Selected Students	25	514.96	32.91	0	4	72	8	16
		School	367	518.01	39.58	1.63	8.45	65.67	10.08	14.17
		District	367	518.01	39.58	1.63	8.45	65.67	10.08	14.17
		State	8088	512.9	38.82	1.99	6.95	58.48	16.39	16.18
	Reading Percentile Rank	Selected Students	25	64						
		School	367	67						
		District	367	67						
		State	8088	60						
	Math Scale Score	Selected Students	25	484.44	25.65	0	4	28	44	24
		School	365	491.19	37.28	5.75	7.67	34.52	28.49	23.56
		District	365	491.19	37.28	5.75	7.67	34.52	28.49	23.56
		State	8065	487.33	40.52	7.41	6.32	27.48	25.93	32.86
	Math Percentile Rank	Selected Students	25	36						
		School	364	52						
		District	364	52						
		State	8067	54						
	Writing Raw Score	Selected Students	24	7.13	1.26	0	4.2	16.7	79.2	0
		School	350	7.5	1.3	0	0.57	54.86	37.43	7.14
		District	350	7.5	1.3	0	0.57	54.86	37.43	7.14
		State	7685	7.39	1.46	0.1	1.61	49.24	37.28	11.76

Bar Chart of Reading and Math Scale Scores
Bar Chart of Writing Raw Scores
Bar Chart of Reading and Math Percentile Rank Scores
Download spreadsheet format

Bar Chart of Reading Performance Levels
Bar Chart of Math Performance Levels
Bar Chart of Writing Performance Levels

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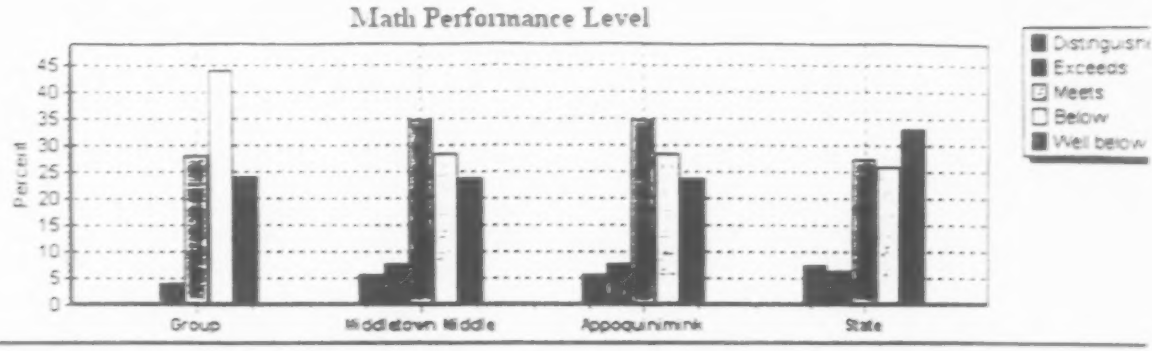
Bar Chart for Spring 2000 DSTP: Grade 8



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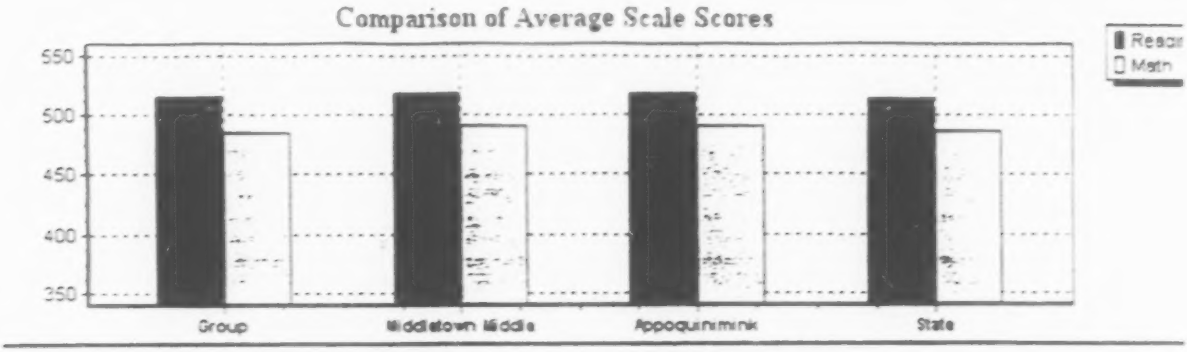
DSTP-OR Home | Group Reports | Codes

Bar Chart for Spring 2000 DSTP: Grade 8



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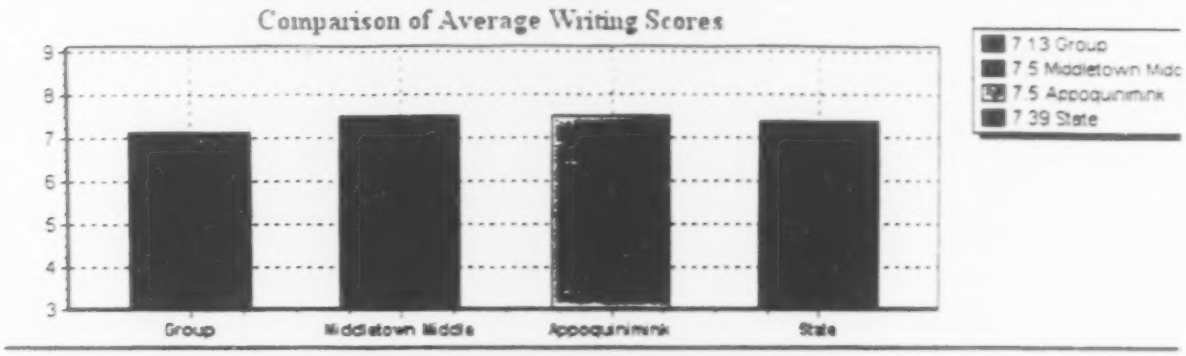
DSTP-OR Home | Group Reports | Summary Level | [redacted]

Bar Chart for Spring 2000 DSTP: Grade 8



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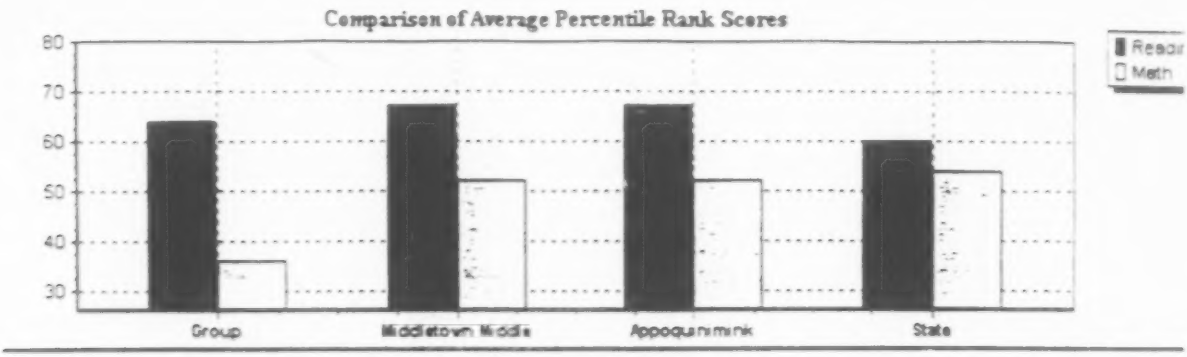

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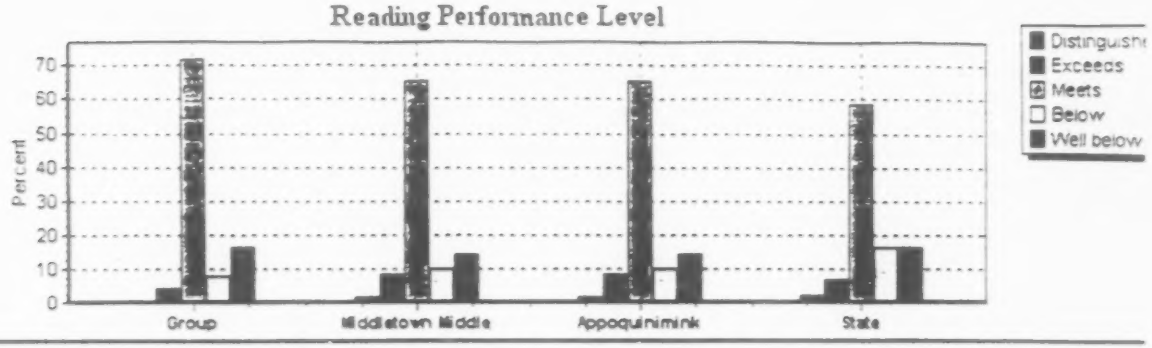

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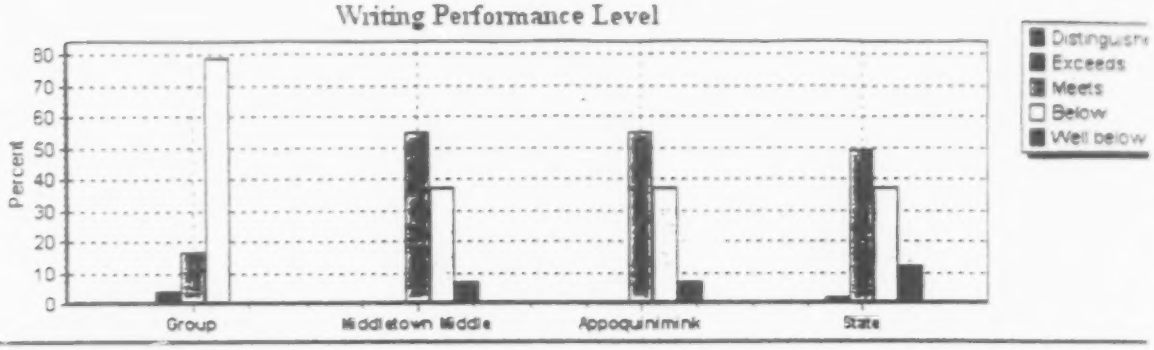

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B6: Table of Percentile Ranks Corresponding to National Curve Equivalent Ranges

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Caution! Read below before working with percentile ranks!

If you would like to download the SAT9 data for additional analysis for a group of students, do not simply average the individual percentile ranks for the group. You must use the group norm instead of the individual norm because of the statistical characteristics of test scores. Following are the steps to obtain the group's percentile rank. If you have any questions, please contact Dr. Lru Zhang at (302) 739-2768 or lzhang@state.de.us

1. Get each student's NCE score
2. Calculate the mean (or the average) of the NCE scores for the group, rounded to the nearest tenth
3. Use the Table of Percentile Ranks Corresponding to National Curve Equivalent Ranges (below) to convert the mean NCE score to the percentile rank for the group

Example: If the mean NCE score of a selected group of students is 48.5 which falls in the NCE range of 48.0 - 48.7, the corresponding percentile rank is 47.

Table of Percentile Ranks Corresponding to National Curve Equivalent Ranges

Percentile Rank	NCE From	NCE To	Percentile Rank	NCE From	NCE To	Percentile Rank	NCE From	NCE To
1	1	4.2	34	41.1	41.6	67	59.1	59.6
2	4.3	8.7	35	41.7	42.2	68	59.7	60.1
3	8.8	11.8	36	42.3	42.7	69	60.2	60.7
4	11.9	14.3	37	42.8	43.3	70	60.8	61.3
5	14.4	16.3	38	43.4	43.8	71	61.4	62
6	16.4	18.1	39	43.9	44.4	72	62.1	62.6
7	18.2	19.7	40	44.5	44.9	73	62.7	63.2
8	19.8	21.1	41	45	45.5	74	63.3	63.9
9	21.2	22.4	42	45.6	46	75	64	64.5
10	22.5	23.6	43	46.1	46.5	76	64.6	65.2
11	23.7	24.7	44	46.6	47.1	77	65.3	65.9
12	24.8	25.8	45	47.2	47.6	78	66	66.6
13	25.9	26.8	46	47.7	48.1	79	66.7	67.3
14	26.9	27.7	47	48.2	48.7	80	67.4	68.1
15	27.8	28.6	48	48.8	49.2	81	68.2	68.9
16	28.7	29.5	49	49.3	49.7	82	69	69.7
17	29.6	30.3	50	49.8	50.3	83	69.8	70.5
18	30.4	31.1	51	50.4	50.8	84	70.6	71.4

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19	31.2	31.9	52	50.9	51.3	85	71.5	72.3
20	32	32.5	53	51.4	51.3	86	72.4	73.2
21	32.7	33.4	54	51.9	52.4	87	73.3	74.2
22	33.5	34.1	55	52.5	52.9	88	74.3	75.3
23	34.2	34.8	56	53	53.4	89	75.4	76.4
24	34.9	35.5	57	53.5	54	90	76.5	77.6
25	35.6	36.1	58	54.1	54.5	91	77.7	78.9
26	36.2	36.8	59	54.6	55.1	92	79	80.3
27	36.9	37.4	60	55.2	55.6	93	80.4	81.9
28	37.5	38	61	55.7	56.2	94	82	83.6
29	38.1	38.6	62	56.3	56.7	95	83.7	85.7
30	38.7	39.3	63	56.8	57.3	96	85.8	88.1
31	39.4	39.8	64	57.4	57.8	97	88.2	91.2
32	39.9	40.4	65	57.9	58.4	98	91.3	95.6
33	40.5	41	66	58.5	59	99	95.7	99